# EMCO Remote Shutdown 5

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# Table of Contents

**Chapter 1: Introduction** ... 4

**Chapter 2: Application Interface Overview** ... 5

**Chapter 3: Getting Started** ... 7

Network Enumeration ... 7
Custom Network Groups Management ... 7
Remote Task Configuration ... 7
Schedule Management ... 7
Executing and Terminating Task ... 7

**Chapter 4: Configuring Machines' hardware for Wake-on-LAN** ... 24

Setting up Machines' BIOS ... 24
Configuring Machines' Network Adapter ... 24

**Chapter 5: Working with Remote Shutdown** ... 29

Performing Remote Actions ... 29
All Machines View ... 29
Hibernate Particular Qualities ... 29
Transmission methods overview ... 29
Prerequisites of Wake-on-LAN ... 29
MAC Address Scan ... 29
Remote Shutdown Server Management ... 29
Databases Management ... 29

**Chapter 6: Calendar View** ... 38

Scheduling Area ... 38
Date Navigator ... 38
Machine Queue ... 38
Task Details Pane ... 38

**Chapter 7: Executing and Scheduling Tasks** ... 45

Executing Tasks ... 45
Scheduling Tasks ... 45
Aborting Tasks Execution ... 45
Task Execution Options ... 45
Notification Settings ... 45
Configuring Recurrence ... 45
Task Execution Confirmations ... 45
Task Execution Results ... 45
Machine Queue Management ... 45

**Chapter 8: Network Management** ... 61

Machine Tree ... 61
Network Enumeration ... 61
Network Objects Properties ... 61
Adding Machines to the Custom Grouping ... 61

**Chapter 9: Alternate Credentials** ... 73

Alternate Credentials Pane ... 73
How does it work? ... 73
How do I access another domain? ... 73

**Chapter 10: Application Preferences** ... 82

Remote Shutdown ... 82
Tasks and Schedule ... 82
Miscellaneous ... 82

**Chapter 11: Graphical User Interface features** ... 104

Skinning ... 104
Ribbon ... 104
UI Elements' main features ... 104

**Chapter 12: Evaluation of the Product** ... 113

Evaluation Wizard ... 113
Where can I get my License Code? ... 113

**Chapter 13: Main Application Actions** ... 115

Remote Shutdown Ribbon Page ... 115
Application Ribbon Page ... 115

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**Chapter 14: Application Log** ..... 120

**Chapter 15: Task Management** ..... 122

**Chapter 16: Live Update** ..... 123

**Chapter 17: Requirements** ..... 124

**Chapter 18: About EMCO Software** ..... 125

**Chapter 19: Contact Information** ..... 127

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# Chapter 1: Introduction

**EMCO Remote Shutdown** is a power management software allows you to manage network PCs from a central location and execute remote shutdown, Wake-on-LAN, reboot, power off, hibernate and other operations remotely. You can easily manage any network PCs or groups of PCs with just a few mouse clicks. Remote operations can be executed manually on demand or automatically on schedule, so you can completely automate power management operations in your organization.

According to the latest researches near a 40% of office PCs stay turned on at non-business hours. Using this power management software you can automatically and remotely shutdown and wake up PCs to reduce you energy consumption and save up to $50 per PC per year.

EMCO Remote Shutdown is an network solution that allows you to centrally manage PCs available in the local network. Using the application you can shutdown, wake up, reboot one or multiple network PCs remotely and perform other operations to manage them. Remote operations are customizable. For example, when you run remote shutdown, you can choose an option to allow remote users to cancel shutdown.

All remote operations can be scheduled, so you can use EMCO Remote Shutdown to create your own power management plan. This plan can include many remote operations with different PCs that will be executed automatically according with their schedule settings.

## Main Features and Benefits

Remote Shutdown is a cost-effective software solution for power management of remote PCs. It doesn't require any investments into hardware and deployment across your organization. You can setup it in minutes and start saving on energy costs immediately by reducing energy wasting. Make your organization greener and help to save the planet.

### Network Power Management

Simplify your network administration tasks by managing state of all remote PCs directly from your workplace. Make one-click power management of individual PC and PC groups:

- Manage PCs in domains and workgroups
- Make remote shut down, WOL, reboot, log off, etc.
- Allow operations cancellation on remote side
- Get an execution status report for every operation

### Auto Shut Down and Wake On LAN

Automate power management in your organization by scheduling tasks for PCs turning on and off, hibernating, etc. Create individual schedules for different groups of PCs.

- Launch tasks on demand or according to schedule
- Use visual calendar for tasks tracking and planning
- Add one-time and recurrent tasks to schedule
- Run the application as a service to work on background

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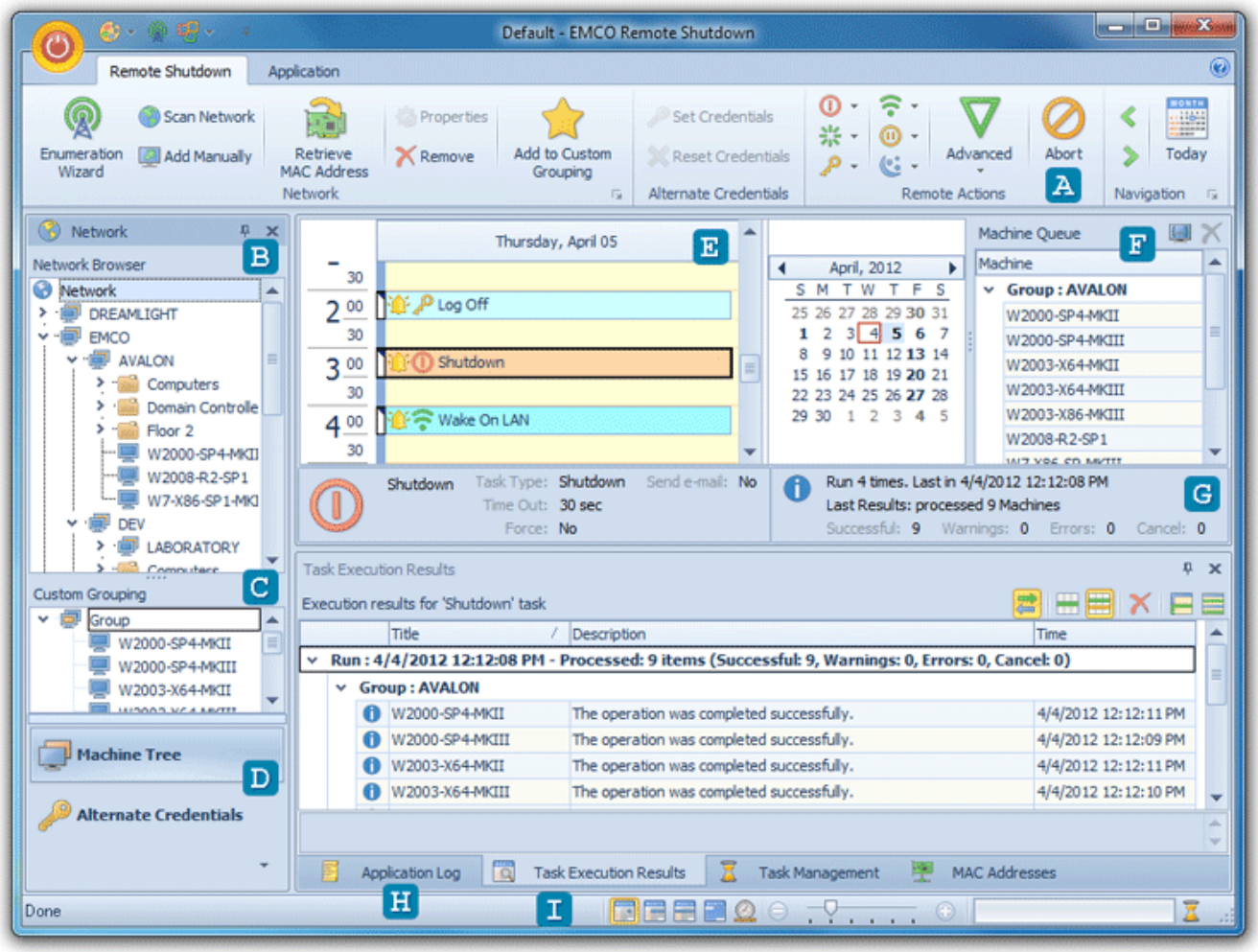
# Chapter 2: Application Interface Overview

It's supposed that you successfully downloaded and installed Remote Shutdown. When you launch it for the first time, you can see the **Trial** dialog that prompts to start evaluation or enter an ordered license. Click on the **Evaluate** button in order to start 30-days evaluation period. You will pass on to the main application screen. Pic 1

At the top of the main screen you can find the **Ribbon** bar A that provides an access to main application actions. It consists of two pages, so you can switch between them to get an access to different groups of actions.




**Pic 1. The main application screen**

The application is designed to work in the network environment and operate with remote PCs. Hierarchical network structure is represented by the **Network Browser** pane B located on the left side of the main screen. It shows available domains, workgroups, organization units and PCs. If you need to manage PCs that belong to different organization units or workgroups/domains easily, you can put them into custom groups using the **Custom Grouping** pane. C It allows you to regroup PCs according with your needs and launch group operations with a single click. Buttons at the bottom D are used to switch between the **Machine Tree** page, that displays network structure, and the **Alternate Credentials** page, used to setup different credentials to access different network groups and PCs.

All remote tasks are represented on the **Scheduling** area. E It displays past and future tasks on the calendar, according with their execution date and time. You can switch between dates using the **Date Navigator** pane, located on the right side. Also you can scale and zoom presentation area to display daily, weekly, monthly views and timeline using control bar at the bottom. I

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You can select tasks on the **Scheduling** area in order to manage them or move to another date and time. When you select a task, you can see a list of PCs where it will be executed on the **Machine Queue** pane. F If required, you can add or remove PCs using correspondent actions available on the pane's toolbar. Detailed information about selected action is available on the **Task Details** pane. G There you can see remote task options and task execution statistics. If you need the information about all executed tasks and network operations, you can find it in the **Application Log** view. H In case of any errors you need to check the **Application Log**, because it contains important troubleshooting information.

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# Chapter 3: Getting Started

This part is written for everyone, who is new to EMCO products and in particular to Remote Shutdown. Here you can see how it works, what it can do and find a step-by-step guide on scheduling the remote actions. After reading this part you'll better understand the concept of Remote Shutdown and use it in future without any problems.

First of all, let's clarify two main questions: how Remote Shutdown can help you and when it can be used? This application allows you to manage state of one or multiple PCs at once to shut down, wake up, reboot them, etc. You can change a state of every particular desktop and all together PCs in the local network manually and automatically according with a defined schedule. Using Remote Shutdown you can easily manage remote PC just directly from your workplace or automate entire power management.

Remote Shutdown is successfully used by wide range of companies and organizations to address their needs. For example, IT staff at schools, universities and public libraries easily manage access to thousands desktops remotely by locking and unlocking them when required and according with schedule. Another good example is an automatic daily wakeup and shutdown procedure used by companies and organizations to save energy costs. This chapter will show you how to setup and use Remote Shutdown in your environment.

## What's inside

Network Enumeration
Custom Network Groups Management
Remote Task Configuration
Schedule Management
Executing and Terminating Task

## Network Enumeration

Remote Shutdown is a network application, which operates with network PCs, so at the first step it requires to collect information about your network. The **Network Enumeration Wizard** helps you to initialize the **Network Browser** with the information from your network environment. Click on the **Enumeration Wizard** button located in the **Machine Tree** Ribbon group of the **Shutdown** Ribbon page to launch it. Read the information provided on the welcome page and proceed to the next step. Pic 1 The wizard allows you to automatically scan entire network and display network structure in the **Network Browser** pane or fill it manually by adding PCs by IP addresses, or names. It's preferred to make an automatic scan, so select **Scan Network (Recommended)** option and proceed to the next step. Finally, you can select to enumerate all workgroups and domains or only selected ones. Select **Enumerate All** option and press **Finish** button to start automatic scan process.

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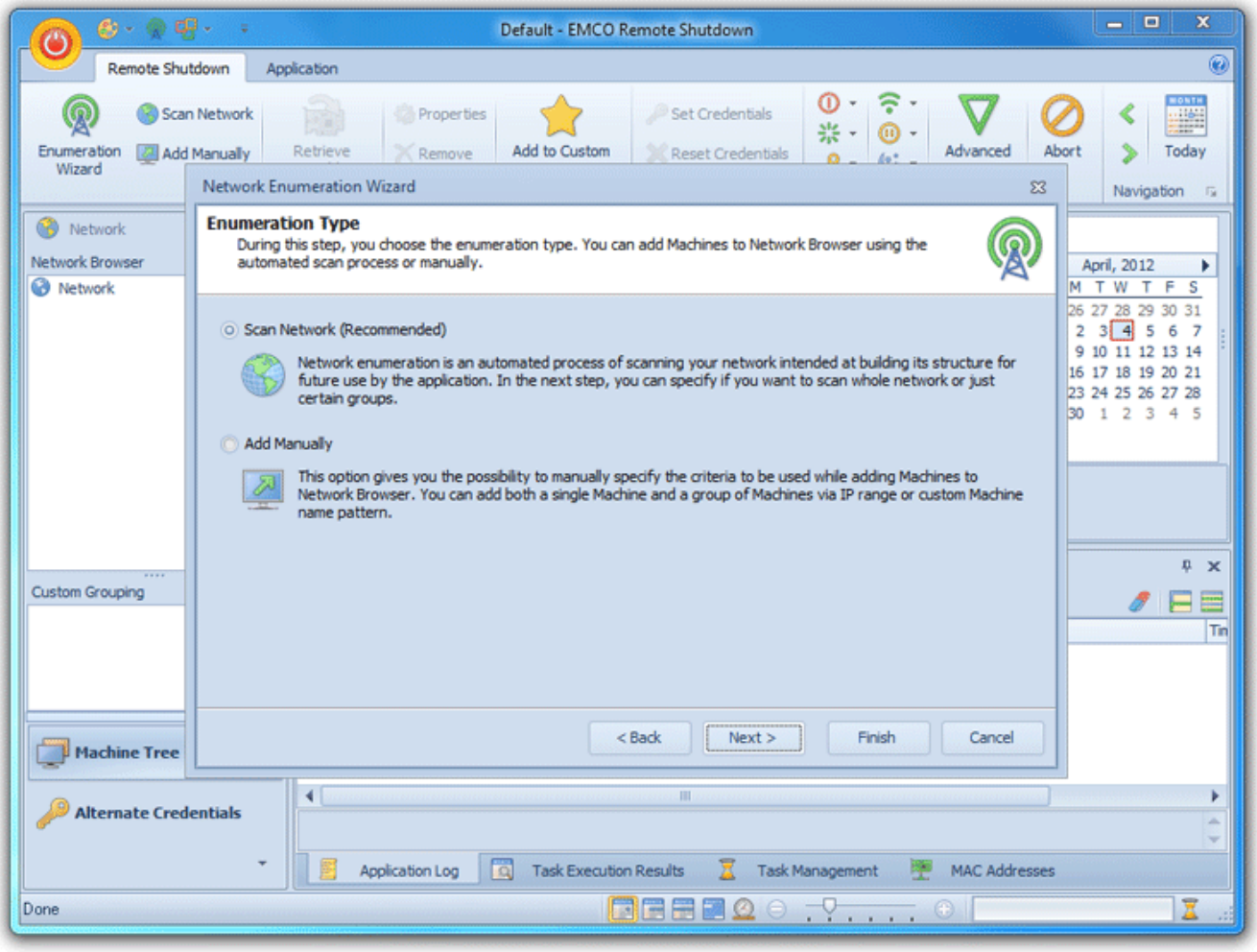
Default - EMCO Remote Shutdown
Remote Shutdown
Application
Enumeration Wizard
Scan Network
Add Manually
Retrieve
Properties
Remove
Add to Custom
Set Credentials
Reset Credentials
Advanced
Abort
Today
Navigation
Network Enumeration Wizard
Enumeration Type
During this step, you choose the enumeration type. You can add Machines to Network Browser using the automated scan process or manually.
Scan Network (Recommended)
Network enumeration is an automated process of scanning your network intended at building its structure for future use by the application. In the next step, you can specify if you want to scan whole network or just certain groups.
Add Manually
This option gives you the possibility to manually specify the criteria to be used while adding Machines to Network Browser. You can add both a single Machine and a group of Machines via IP range or custom Machine name pattern.
< Back
Next >
Finish
Cancel
Network
Network Browser
Network
Custom Grouping
Machine Tree
Alternate Credentials
April, 2012
Application Log
Task Execution Results
Task Management
MAC Addresses
Done

**Pic 1. Network enumeration wizard**

In order to manage remote PCs you need to have an administrative access to them. By default, application uses credentials of your system account under which Remote Shutdown was launched. If this account doesn't have administrative access to scan a particular domain or workgroup, you will be prompted to use another account. Pic 2 You can use option to remember entered username and password in order to apply them automatically every time when you access this domain or workgroup.

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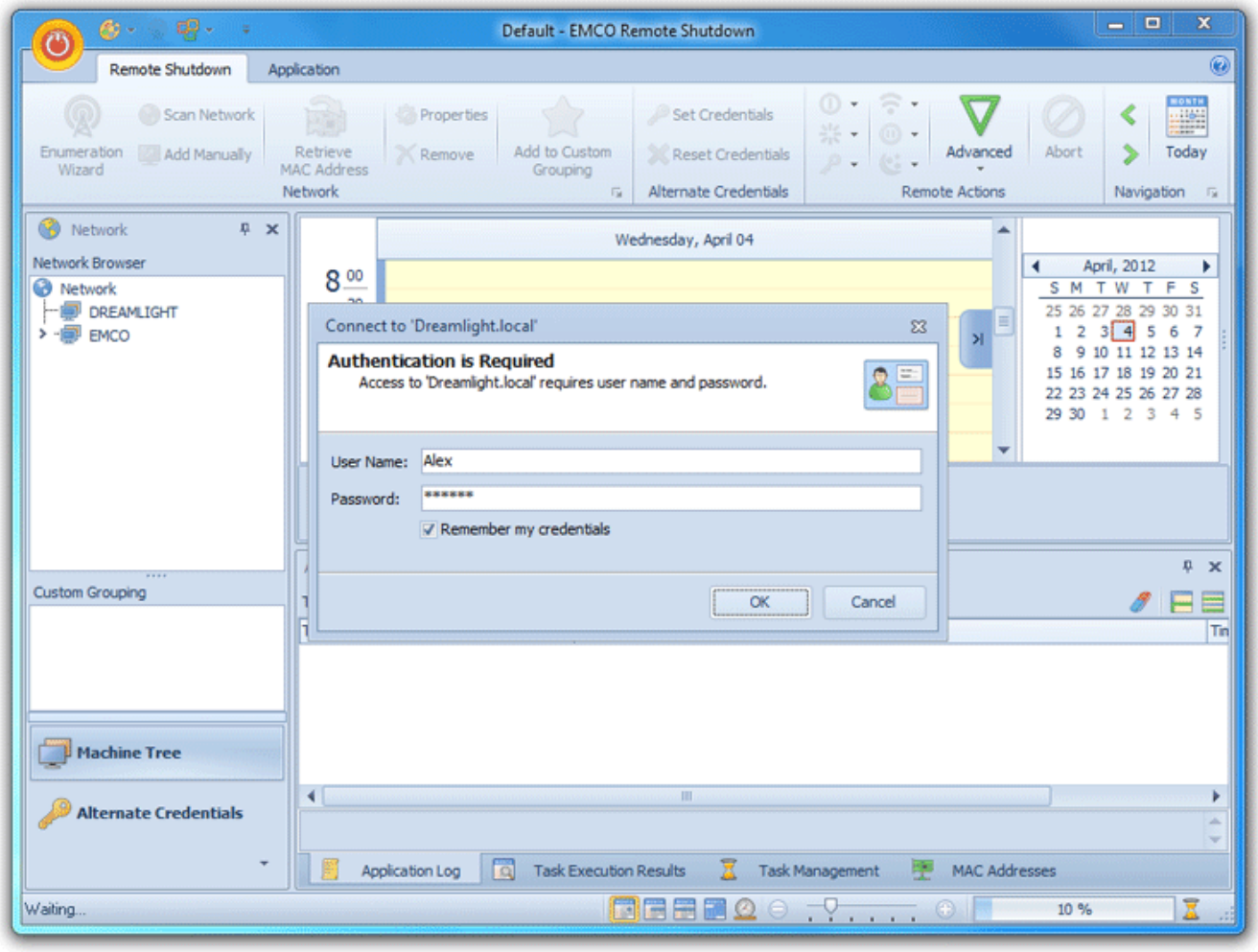


Pic 2. Remote access authentication

When network enumeration is finished, you will see hierarchical network structure in the **Network Browser** pane. It represents your entire network structure, including detected domains, workgroups, organization units and PCs. In order to ensure that enumeration was completed successfully and you are able to manage detected PCs, you have to check the **Application Log**. Pic 3

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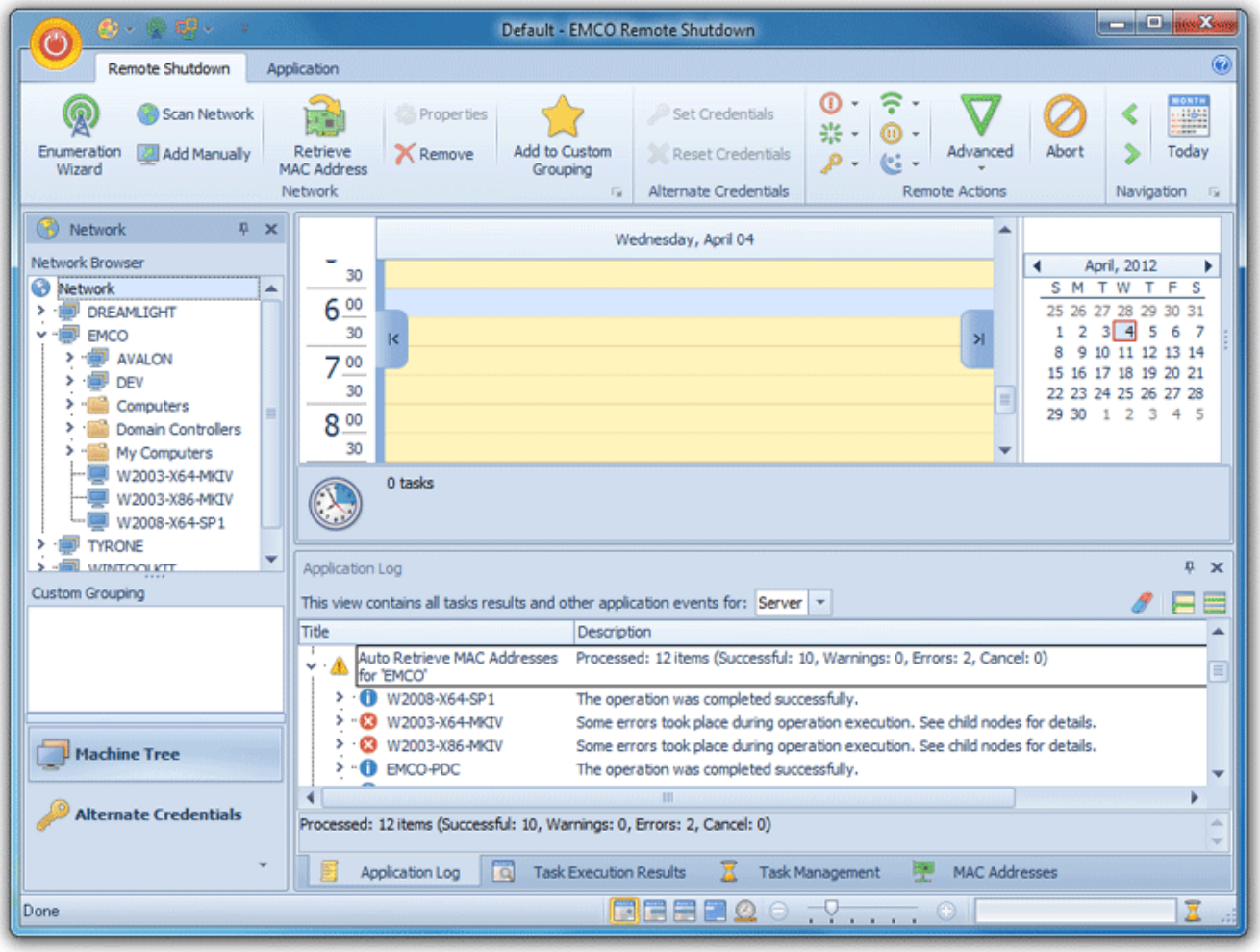


**Pic 3. Network enumerating results**

If you see errors in the **Application Log**, you need to check error details to find troubleshooting instructions. Computers that reported errors can't be managed remotely, so you need to follow provided instructions. One of the most frequent cases is no administrative access to remote PC: your credentials allow scanning domain or workgroup, but they don't provide an administrative access. In this case you need to switch to the **Alternate Credentials** page and specify administrative credentials for selected PC. Pic 4

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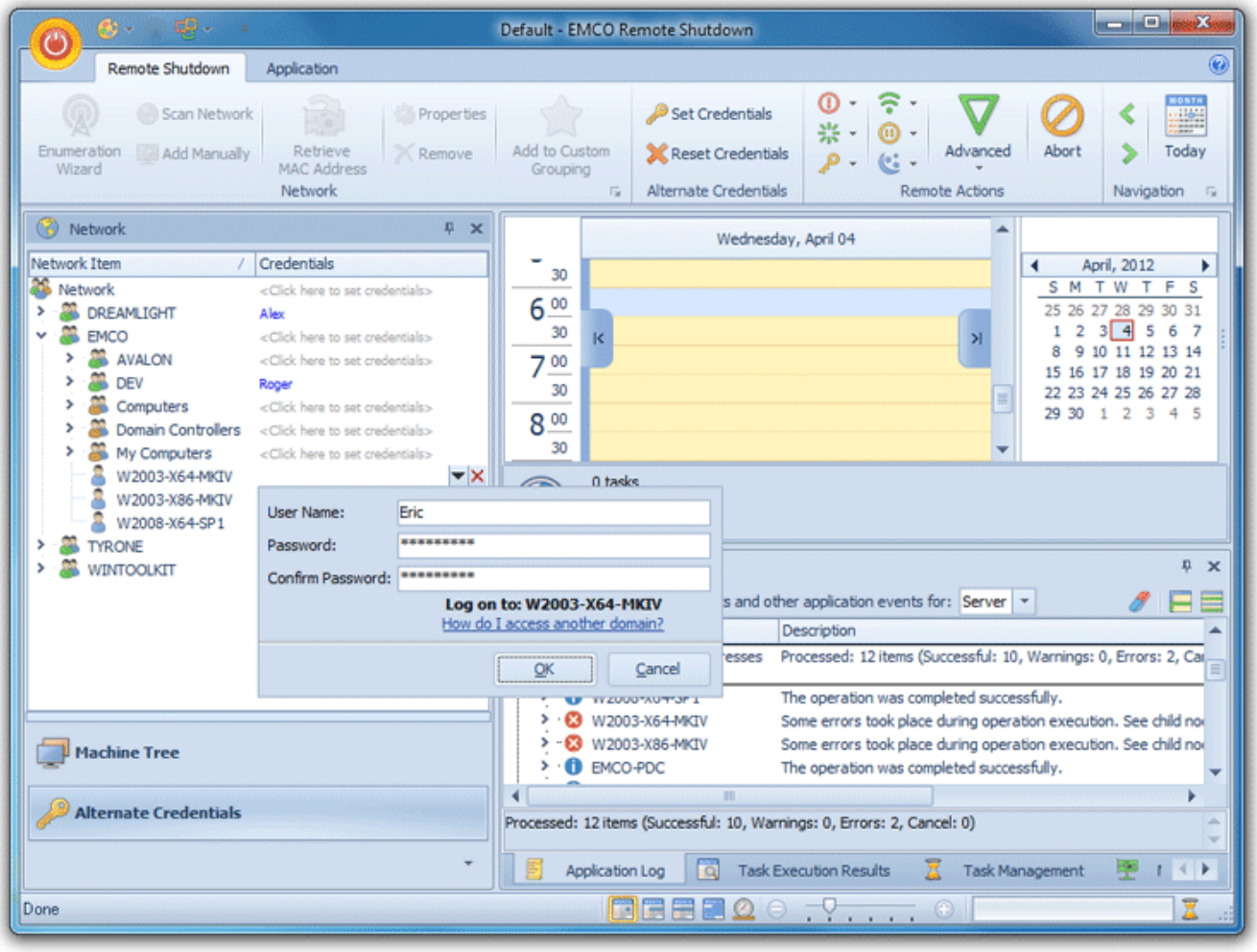


**Pic 4. Alternate credentials configuration**

Now when you have scanned the entire network environment for Machines you can build your own Custom Grouping structure for future usage or skip this step and step directly to configuring remote task.

## Custom Network Groups Management

Network information, displayed by the **Network Browser** pane represents your real network environment. For example, if you have organization units in domains, you can see them in the **Network Browser** pane. It simplifies management of groups of PCs, because you can select group and execute operation for all PCs that belong to this group. But what if you need to manage a set of PCs that belong to different organization units, groups or domains? Remote Shutdown allows you to organize custom groups using the **Custom Grouping** pane.

If you need to create custom group, just select required PCs in the **Network Browser** and drag and drop them into the **Custom Grouping** pane. Alternatively, you can click on the **Add to Custom Grouping** button from the **Machine Tree** Ribbon group of the **Shutdown** Ribbon page to open the correspondent dialog. Pic 1 Using the **Add to Custom Grouping** dialog you can enter the name of new group and select PCs to be included into the group. If you check the group in the **Network Browser**, all its PCs will be added into the custom group.

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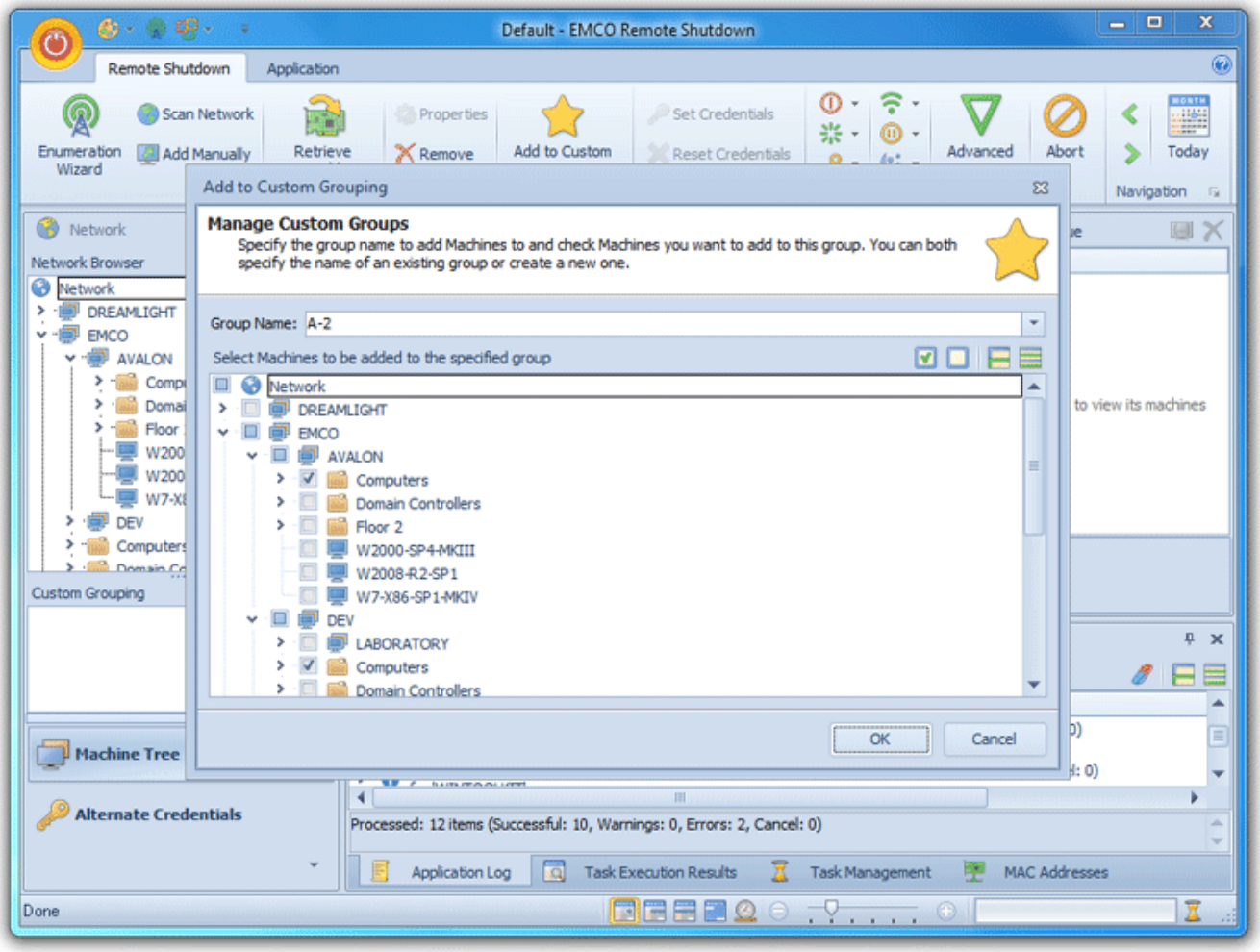


**Pic 1. Custom group creation**

When you created custom groups, you can use them to execute remote operations. In general, they work similarly to groups in the **Network Browser**, so you can get an access to the same actions from the context menu. Pic 2

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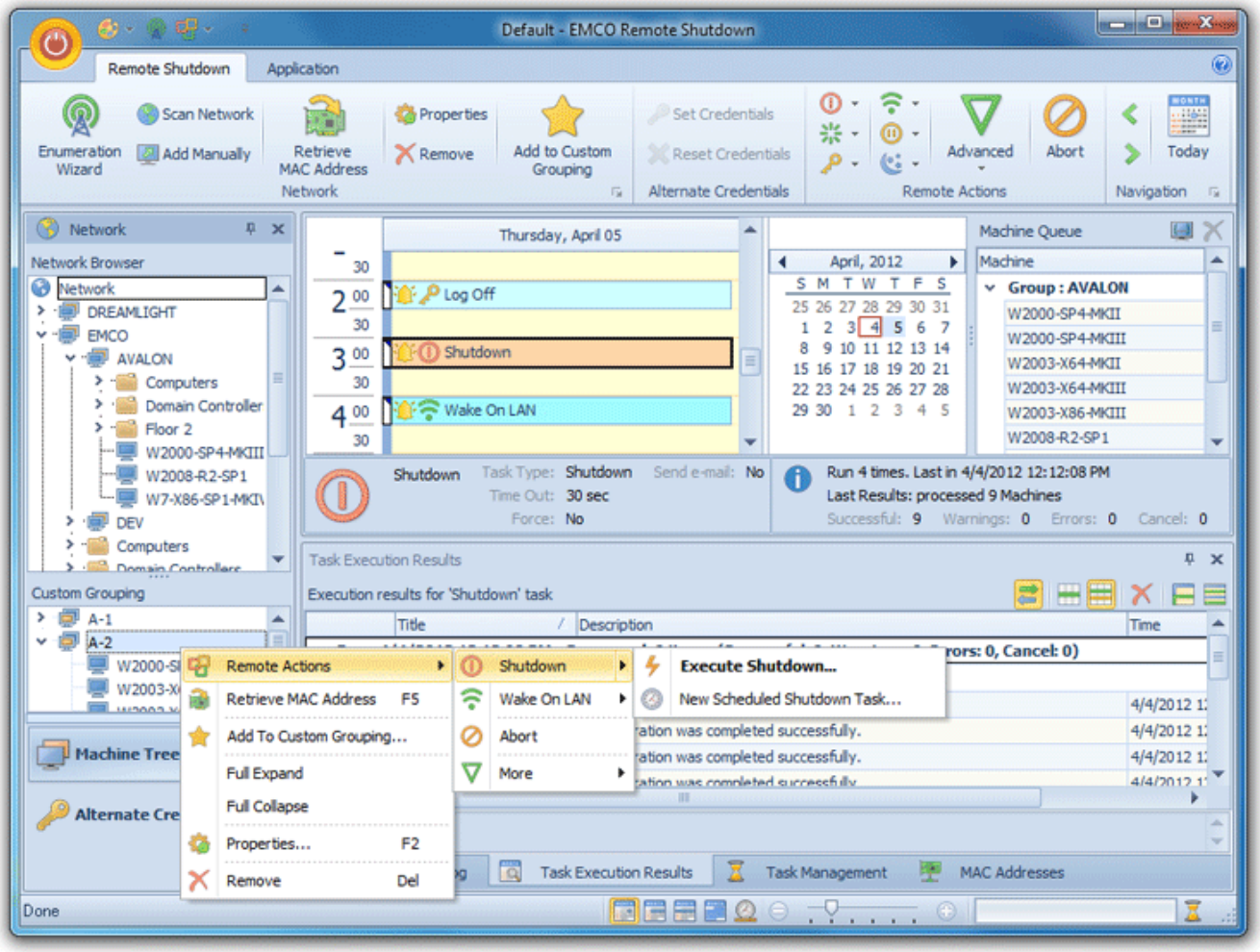


Pic 2. Custom group usage

Now you are familiar with **Custom Grouping** concept and are ready to configure remote tasks.

## Remote Task Configuration

Once the network information is collected, you can start creating a network tasks. For example, in order to create a scheduled shutdown task, click on the **Shutdown** item on the Ribbon and select **New Scheduled Shutdown Task...** It will open the dialog that is organized as a wizard, where you have to define a task configuration. You can click on the **Finish** button on any step to skip following configuration steps and accept default settings.

At the first step you have to enter required task name and optional comment and description. Also you need to define a task start configuration, including date, time and optional recurrence conditions. Pic 1

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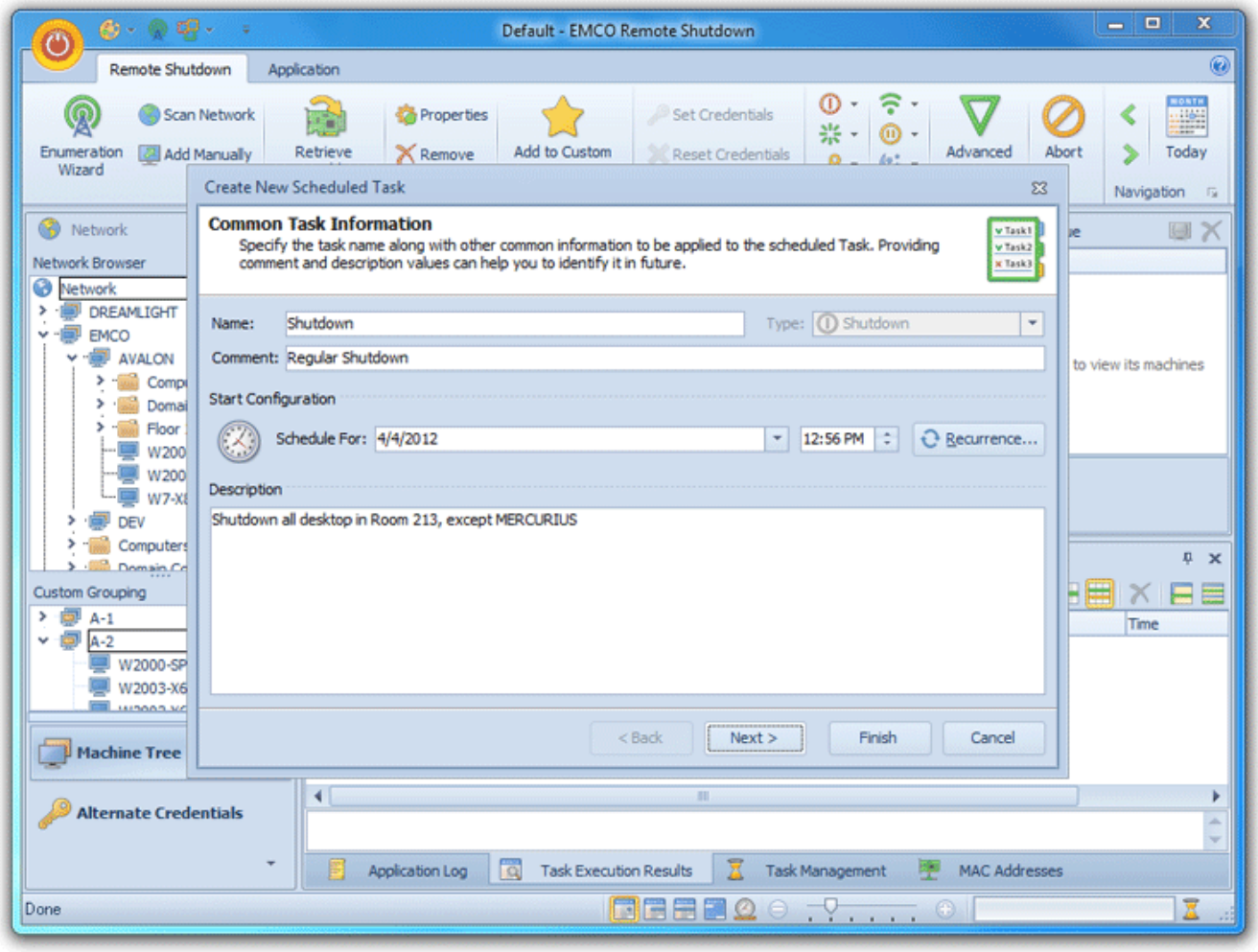


**Pic 1. Remote task configuration**

The application supports recurrent and non-recurrent task. Non-recurrent tasks are executed once in a date and time, specified in the correspondent fields. Recurrent tasks are executed in the defined time periods according with recurrence pattern. To configure recurrent task press the **Recurrence...** button and proceed to the correspondent dialog. Pic 2 It offers a wide range of options, so you can execute task daily, weekly, monthly, yearly with different recurrence conditions - see Recurrence Types topic for details.

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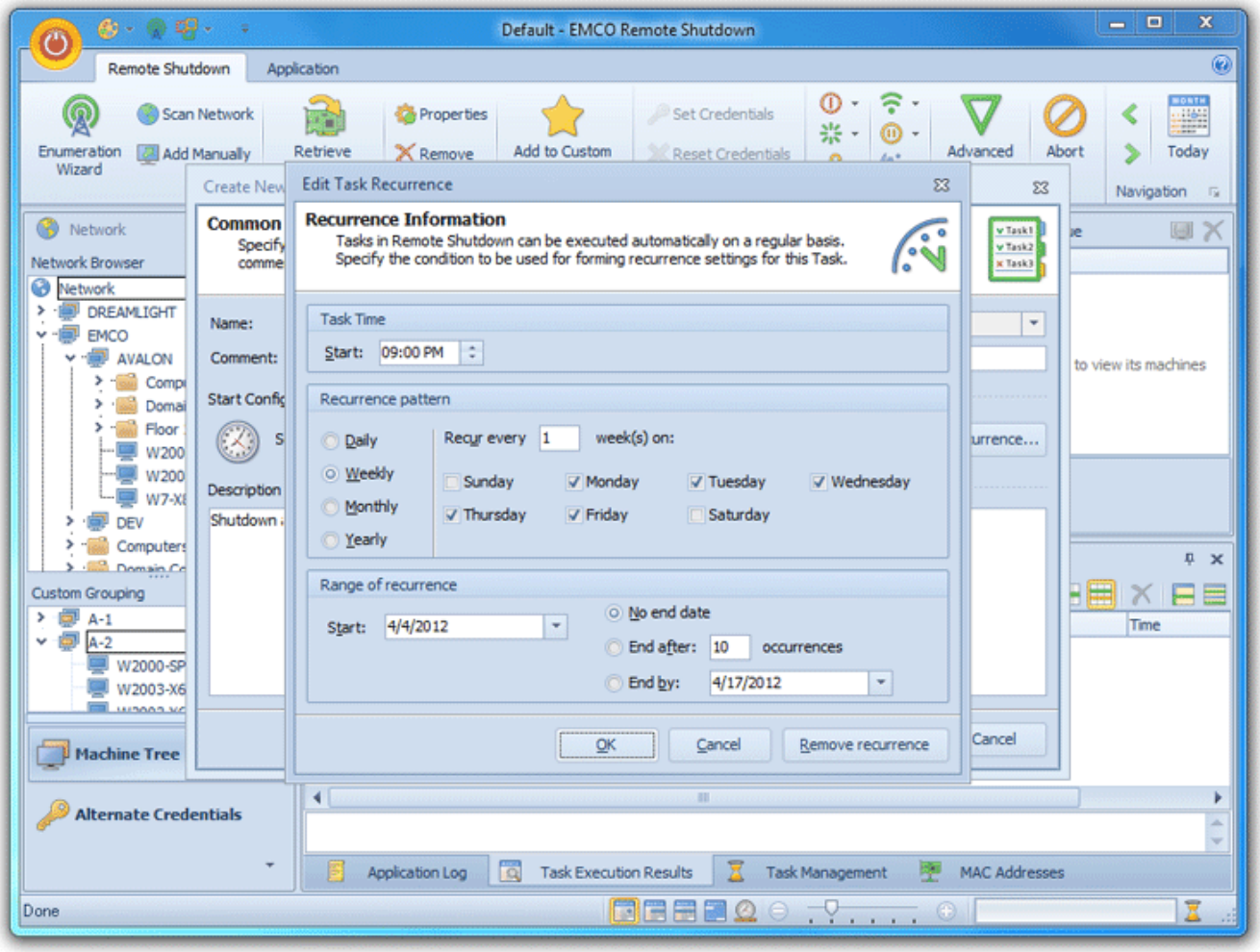


**Pic 2. Task recurrence options**

At the second step you need to select PCs where remote operation will be executed. You can select required PCs on the **Network Browser** pane, located on the left side and also on the **Custom Grouping** pane, located on the right side. All selected PCs will be added into the task's **Machine Queue**. Pic 3

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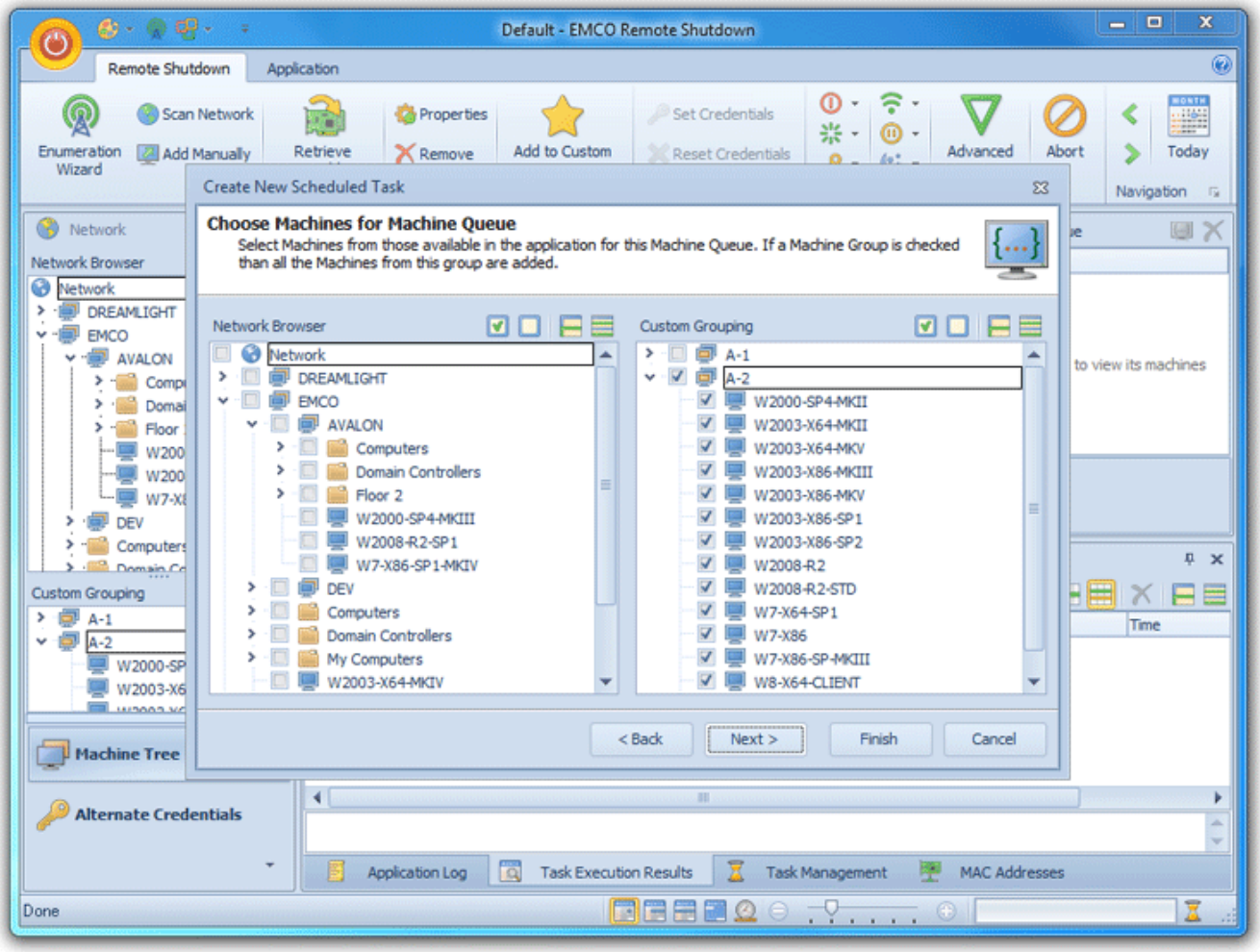


**Pic 3.Target PCs selection**

Finally, on the third step you have to configure remote operation options. A particular set of available options depends on operation and may include a timeout period for execution, notification message, ability to cancel operation on the remote side, etc. Pic 4

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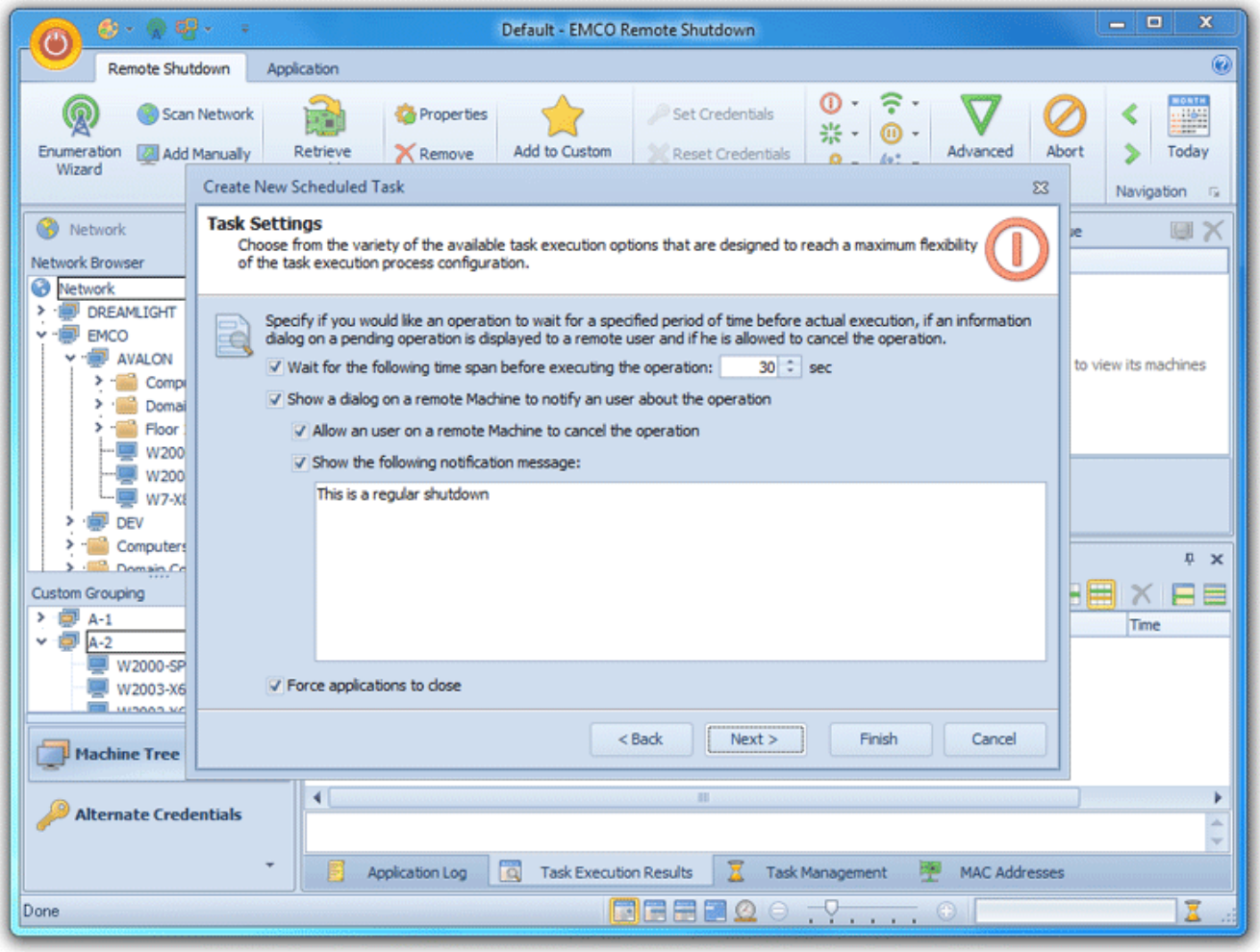


Pic 4. Task execution options

When task configuration is completed, you can press **Finish** button to add it into the schedule. It will be executed according with defined start configuration.

## Schedule Management

When you create a new task, it appears on the **Scheduling** area. This area displays all tasks in scope of selected time range. By default the **Scheduling** area shows all tasks for the selected day. You can switch to another day, using a **Date Navigator** pane, located on the right side. If you need to see tasks in a wider time range, for example, in week or month, you can use toolbar, located on the application's status bar.

You can get information about scheduled tasks and manage them directly on the **Scheduling** area. Past tasks are also represented on the **Scheduling** area, so you can get an access to them if you select past date in the calendar. When you select task, you can see its information on the tool tip and its settings on the **Task Details** pane. Pic 1 You also can manage a list of PCs, where task will be executed directly on the **Machine Queue** pane with no needs to re-create task again.

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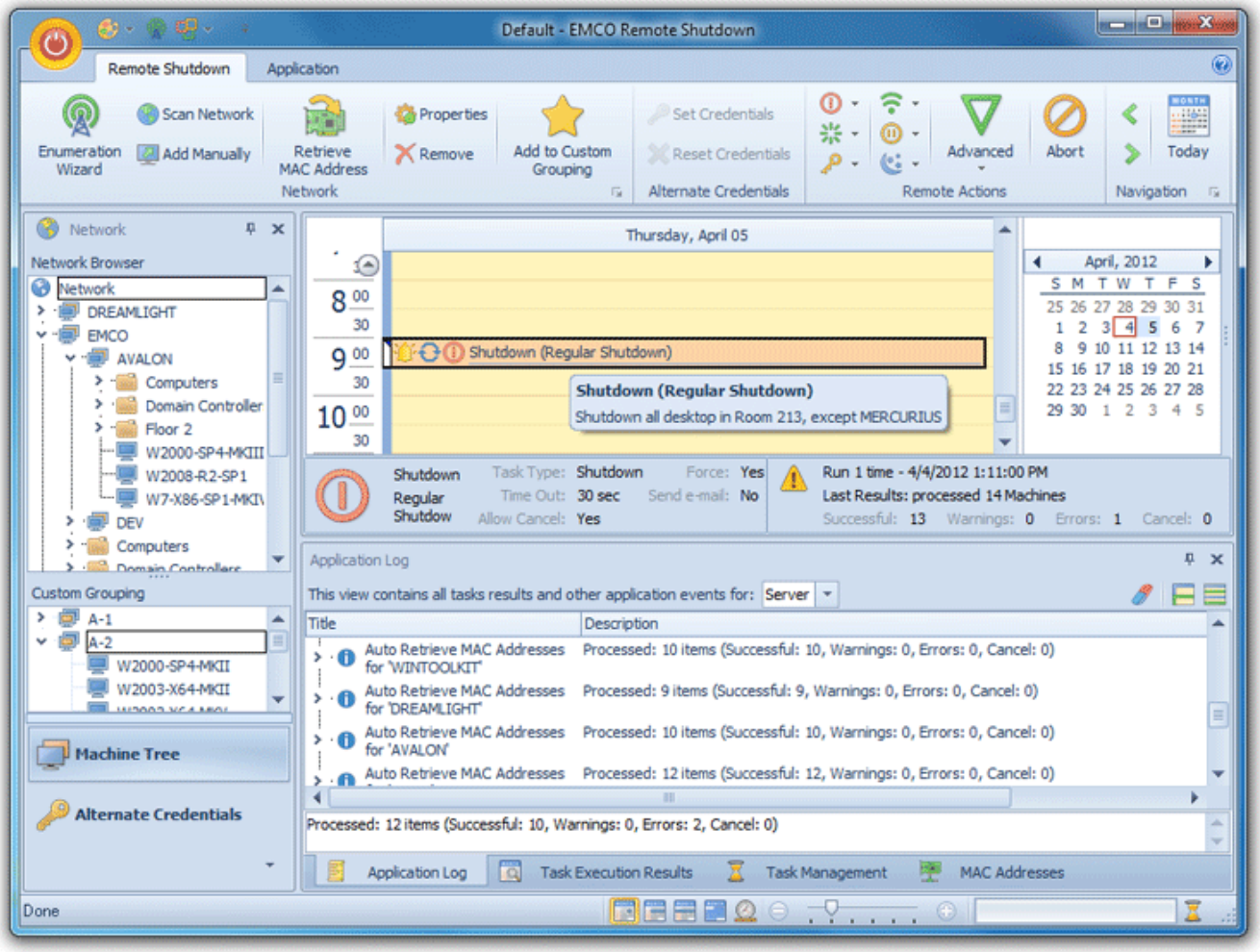


**Pic 1. Information about scheduled task**

In order to change start configuration, you can drag and drop selected task to another day and time. If you need to edit task's settings, delete it or run it now, you can use correspondent options, available from the context menu. Pic 2

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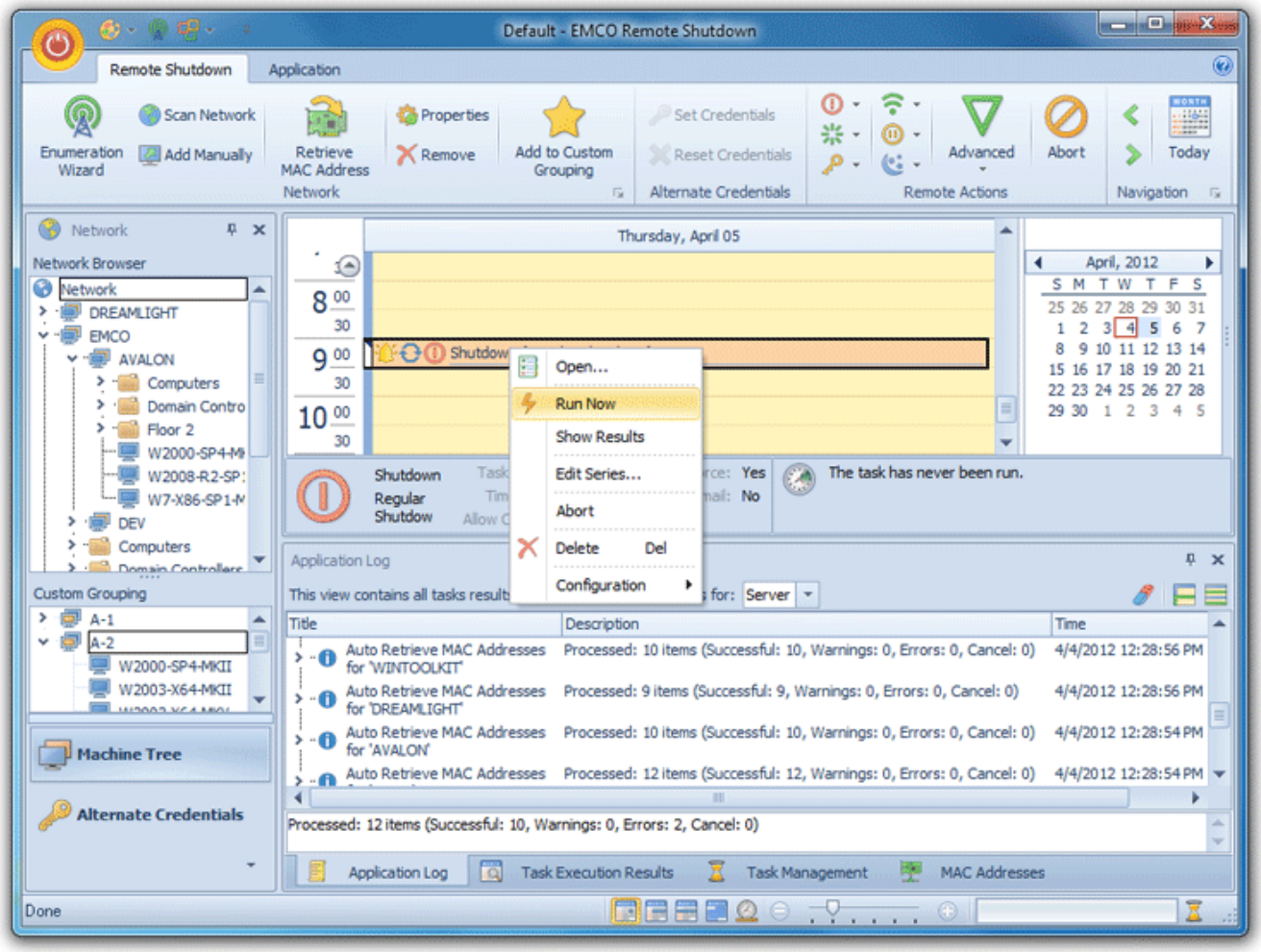


**Pic 2. Scheduled task management**

Now you are introduced to schedule management and are ready to introduce yourself to tasks executions and an availability of terminating them.

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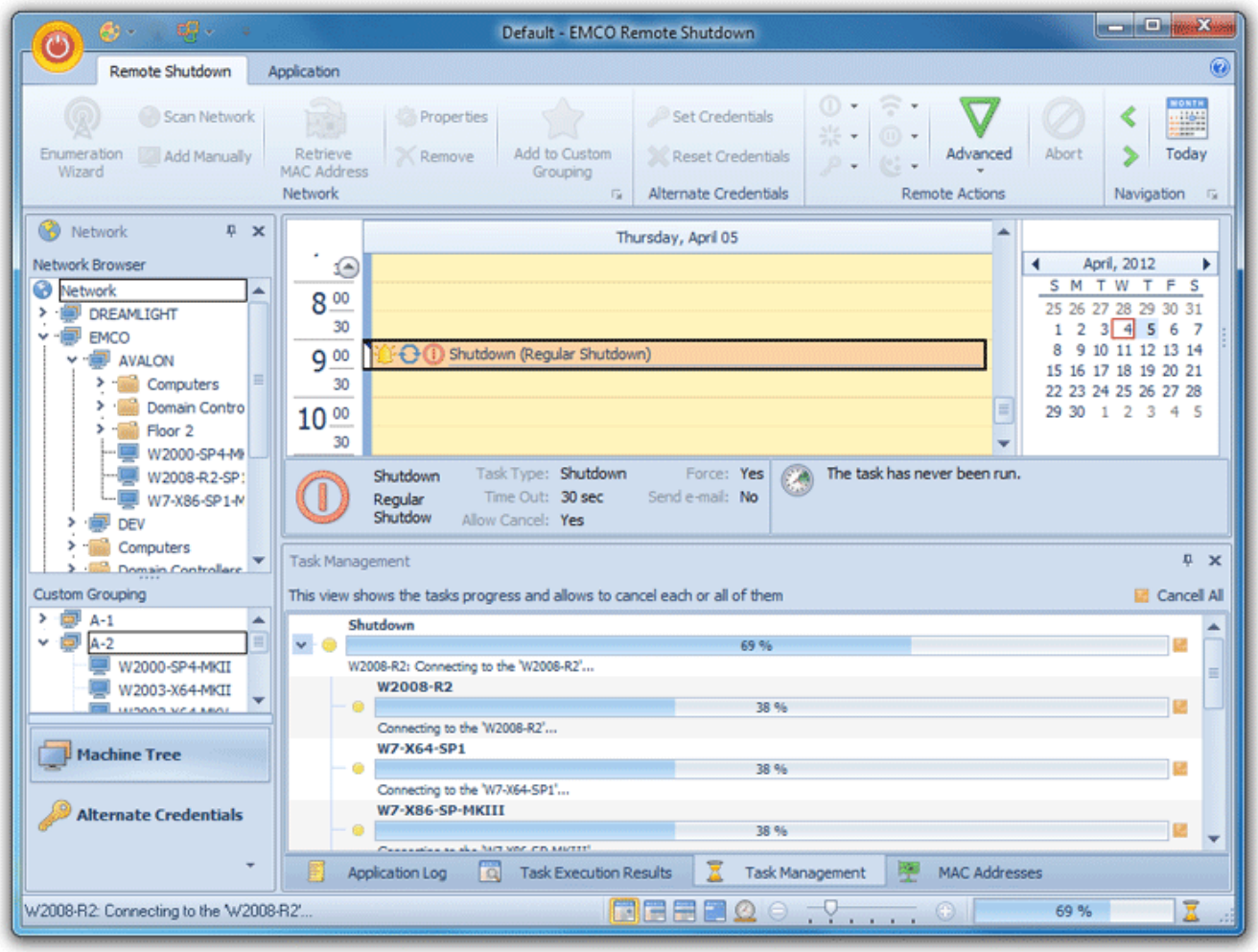
## Executing and Terminating Task

All tasks are executed automatically according with the schedule. As soon as date, time and other start configuration, defined for the task, are reached, the application launches correspondent remote operation. In order to optimize execution time, remote computers from the task's **Machine Queue** are contacted in parallel to run the operation. You can see progress of execution in the **Task Management** view. Pic 1




**Pic 1. Task execution progress**

Task on the **Task Management** view are represented hierarchically, so you can see the progress of overall task execution, as well as the progress on every PC. You can not only check the current execution state, but also can terminate operation, using buttons, located on the right side of progress bars. Hierarchical presentation allows you to terminate an execution on a particular PC or terminate execution on entire domain or network with just a single click.

When you terminate task using **Task Management** options, you are not able to stop operations on PCs where execution was already started. For example, if on some PCs shutdown was initiated and countdown timer was started, shutdown will be launched after countdown, even if you terminate operation for all PCs. In other words, termination prevents execution only on those PCs where operation isn't started yet. If you need to cancel operation even if it was initiated on remote PCs, you need to use an **Abort** command, available for every task from the context menu. Pic 2

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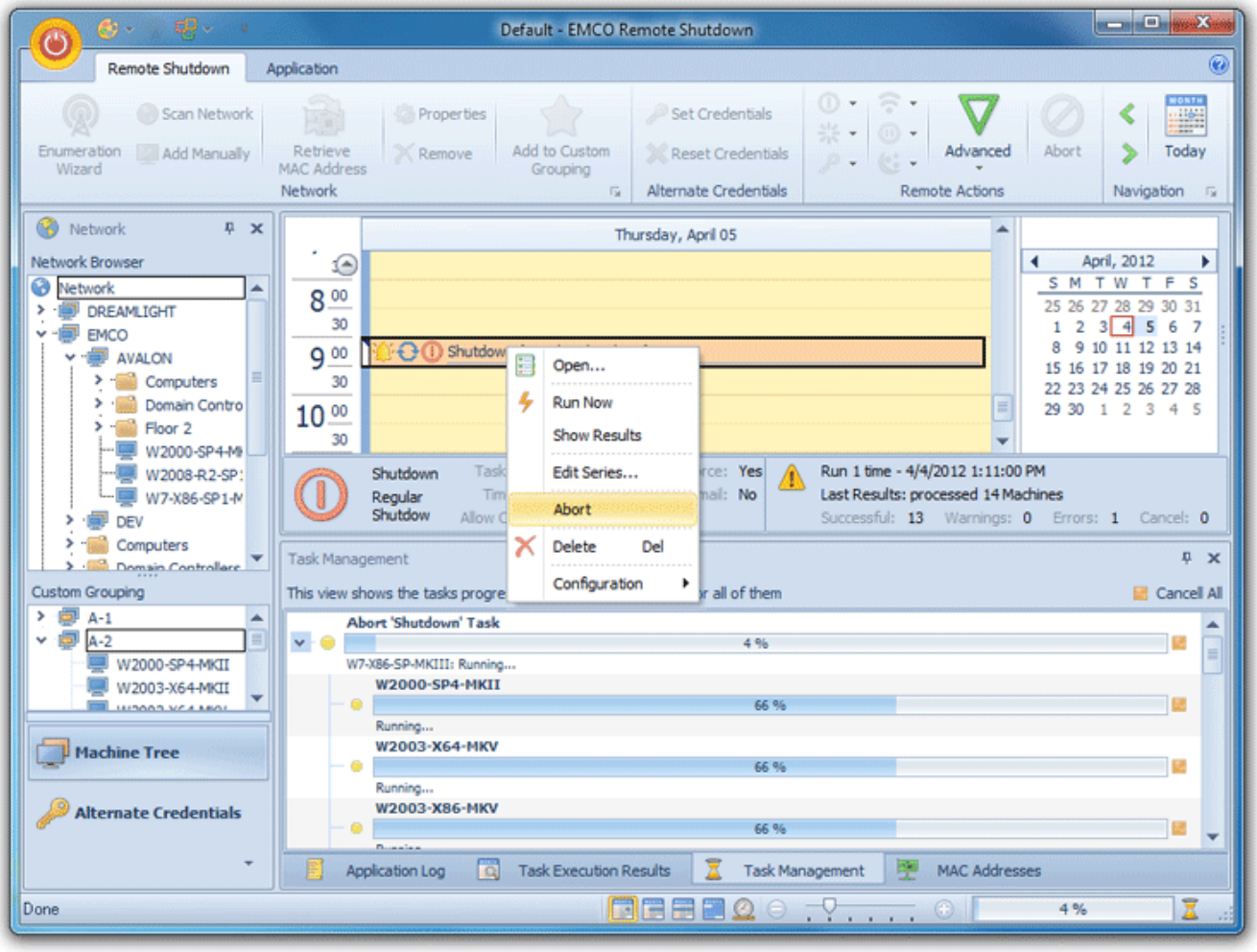


**Pic 2. Aborting operation**

If during the task's configuration you enabled an option to allow operation's cancellation on the remote side, remote users will see a dialog window that allows pressing the button and canceling the operation. Pic 3 This feature allows you to schedule, for example a regular shutdown on the defined time to terminate unused PCs and let users to continue their work, if required.

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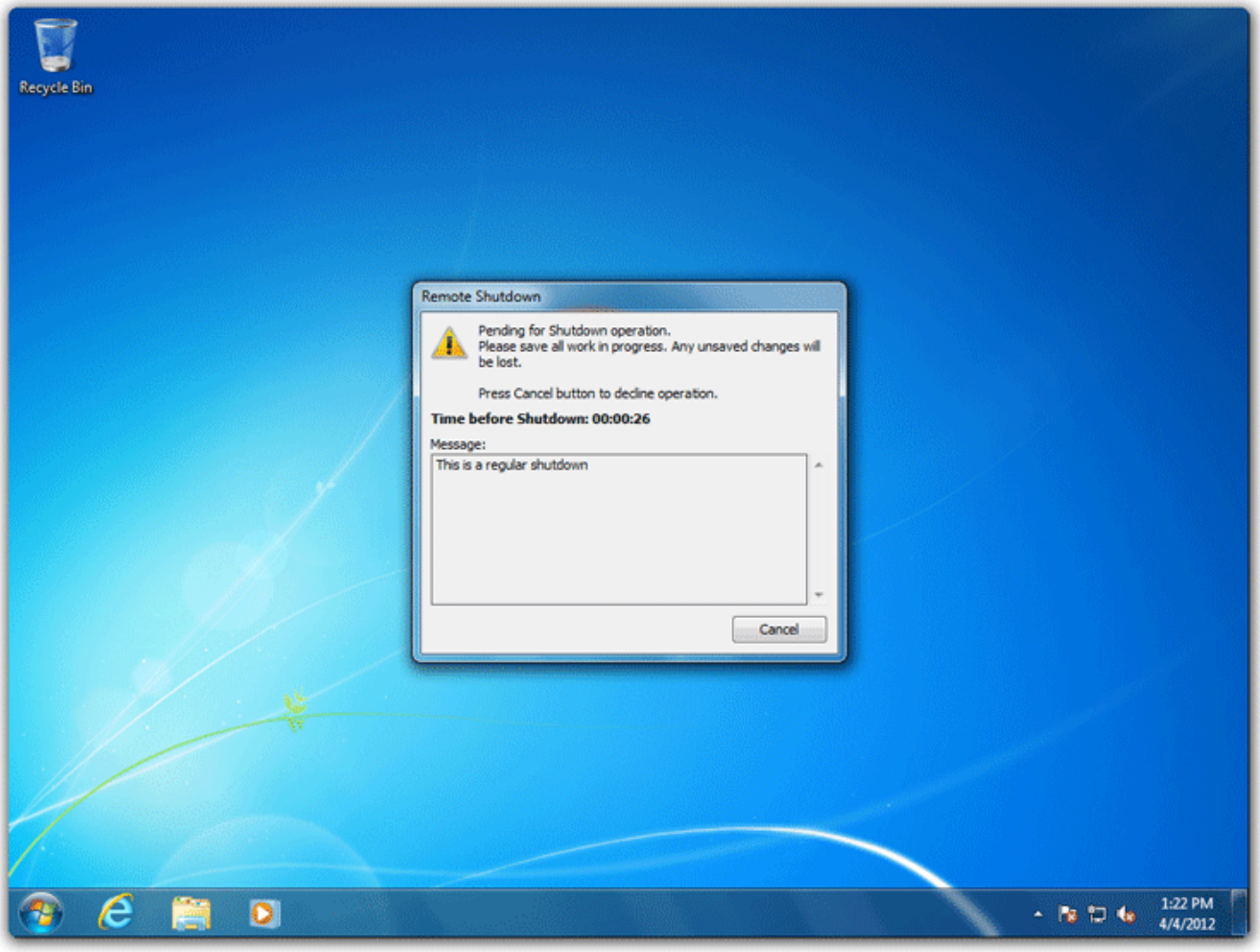


**Pic 3. Notification screen on the remote desktop**

When task execution is completed you can select it on the **Scheduling** area and open **Task Execution Results** view to get a detailed report. Pic 4 It provides you with the information about execution status for every PC, execution time and message in case of execution error. Using this information you can control tasks execution and make a troubleshooting.

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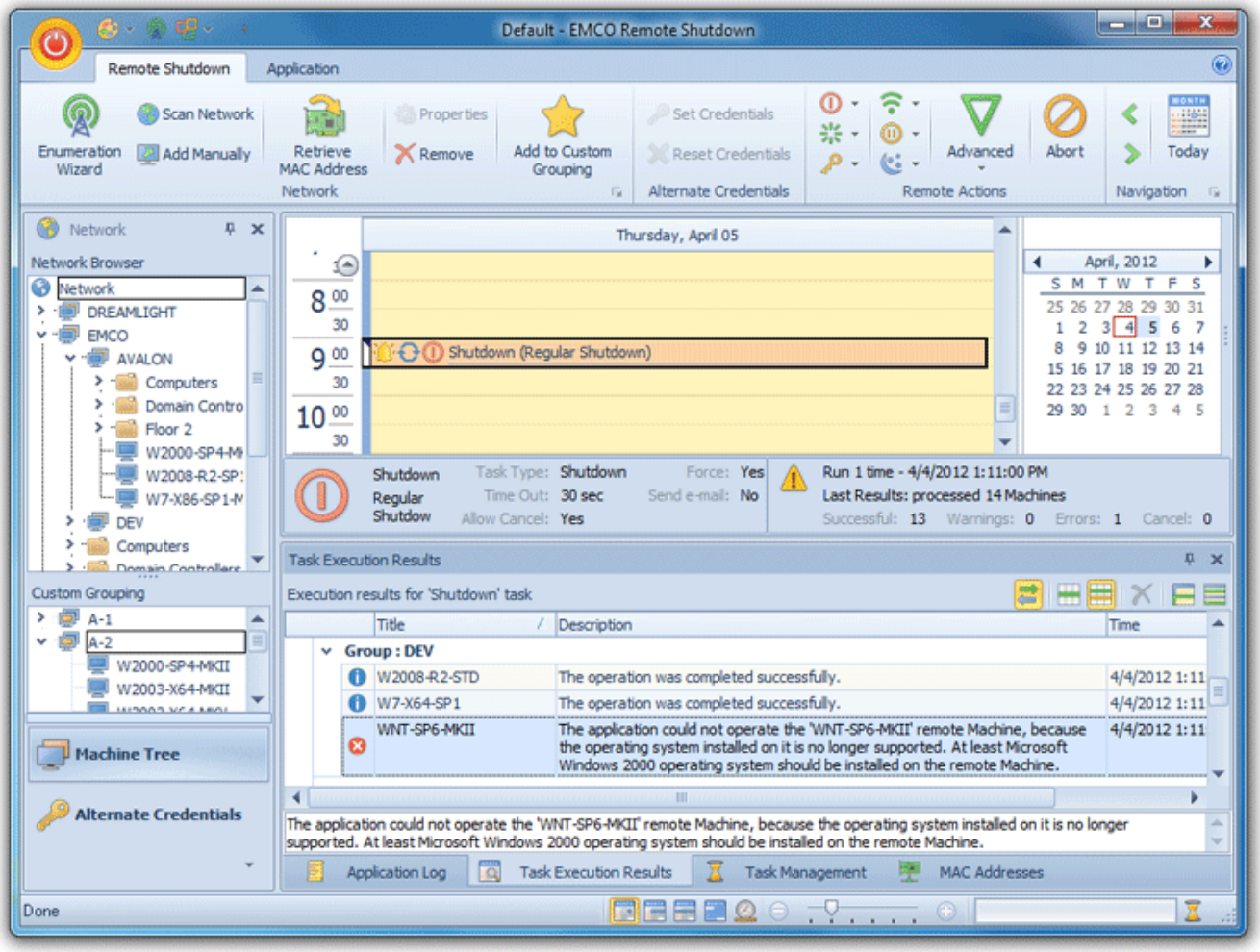


**Pic 4. Task execution results**

Now you are fully introduced to Remote Shutdown and are ready to operate over the set of remote Machines within your network environment.

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# Chapter 4: Configuring Machines' hardware for Wake-on-LAN

We would like to draw your attention to the fact that Wake-on-LAN features are by default disabled both in the Machine's BIOS and Operating System settings, so Remote Shutdown will not wake your Machines up until they are configured properly. This chapter is intended to help you with configuring the Machines' hardware to meet the requirements and prerequisites for performing Wake-on-LAN. We will guide you though the process of setting up the Machines' BIOS for Wake-on-LAN and configuring the network adapter in the Microsoft® Windows operating systems.

If the Machine already meets the requirements described below or has been reconfigured to meet them, it is ready to be turned on by Remote Shutdown.

## What's inside

Setting up remote Machines' BIOS
Configuring remote Machines' Network Adapter

## Setting up Machines' BIOS

In this part of the document, we will tell you how to configure the Machine's BIOS to meet the requirements for the Wake-on-LAN operation by Remote Shutdown to succeed. All relevant settings are usually found in the BIOS section called Power Management. They may also be located in a different place – refer to the motherboard manual to locate them. The following motherboard settings will enable WOL.

### Power Management

Please note that power management features, such as WOL, are closely related to power management itself. Thus, you will most likely need to enable the ACPI or APM support for the motherboard. ACPI and APM are the two main industry standards for power management (with ACPI being the newest and more advanced one). If your motherboard supports WOL, this implies support of either ACPI or APM. You should make sure that whichever one is supported by your motherboard is enabled in the BIOS settings.

If the WOL and power-off state options are not there or not accessible, try enabling ACPI/APM. In some BIOS setups, the ACPI option is called IPCA.

### Power-Off State

Some BIOS setups have the following names for this option:

- Power-off state/method
- ACPI suspend type
- ACPI standby state

Most likely, you will need to set this to S3/STR for the motherboard to be able to wake up on various events. STR (Suspend To RAM) is a special power-off state which leaves certain parts of the machine in a "sleeping" state but still aware of their surroundings. You could say that the machine is "sleeping with one eye open".

### WOL Support

Finally, look for the WOL option. Usually, it is named **WOL** and found in the **Power Management** section. However, it may also be labeled **PME** or **Wake (up) on LAN/Ethernet/PME#** and found under a different BIOS section.

Most of modern motherboards do not have the **WOL** option – in such case, **Power On By PCI Devices (Power On By PCIE Devices)** from the **APM Configuration** section found on the **Power** tab should be enabled instead.

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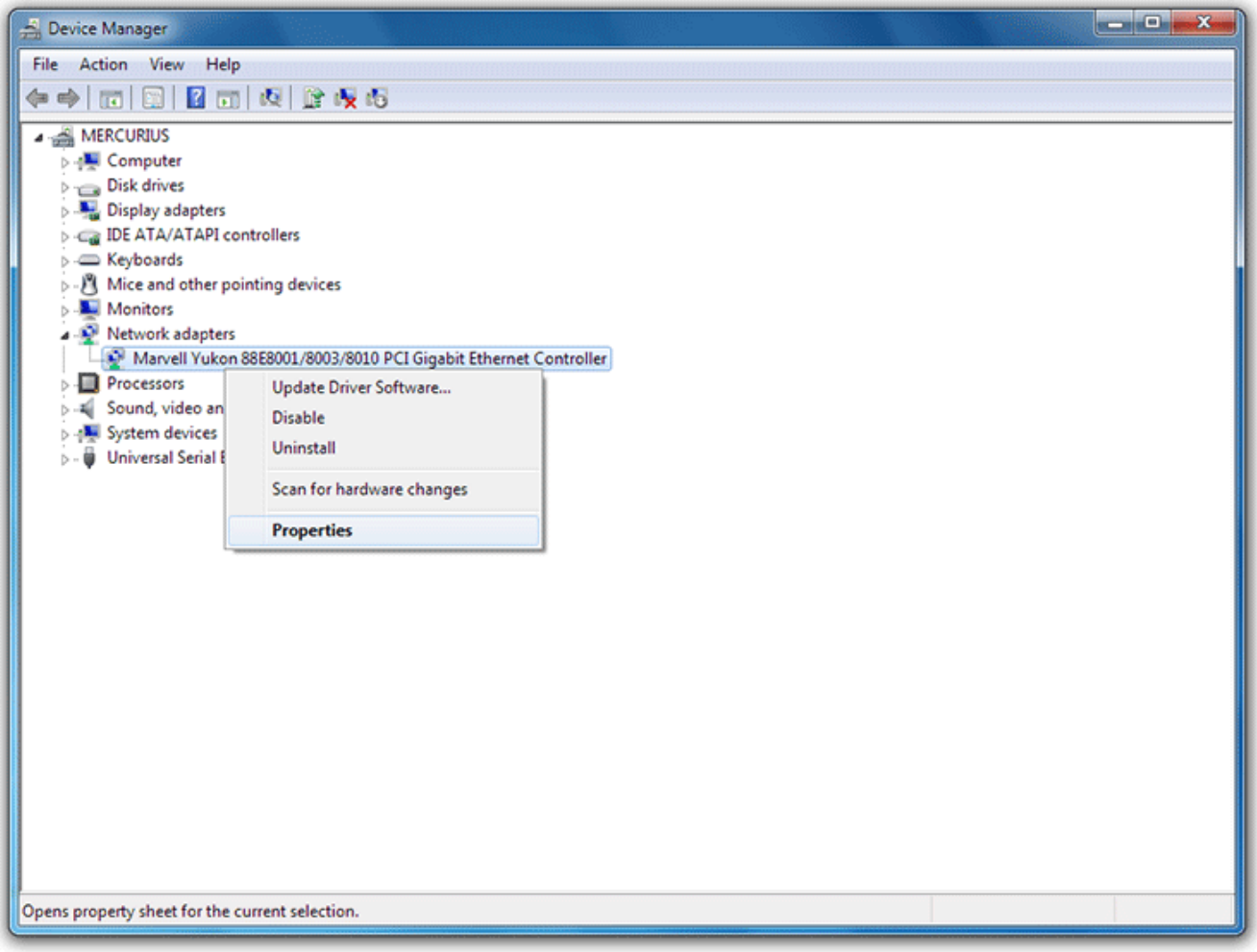
After you have completed the steps described above, the Machine BIOS is configured to support Wake-on-LAN.

## Configuring Machines' Network Adapter

For the Wake-on-LAN operation performed by Remote Shutdown to succeed, Wake-on-LAN must be enabled in the Network Adapter settings of the underlying operating system. This can be done from the Properties of the network adapter in the Device Manager. Follow the below steps to enable Wake-on-LAN for Microsoft® Windows:

1. Open the **Device Manager**.
2. In the window that opens, expand the **Network adapters** node.
3. Select the adapter you want to configure to receive WOL packets, right-click it and select the **Properties** item in the drop-down menu.




4. In the dialog that opens, switch to the **Advanced** tab.
5. Change the **Wake From Shutdown** property to **On**.

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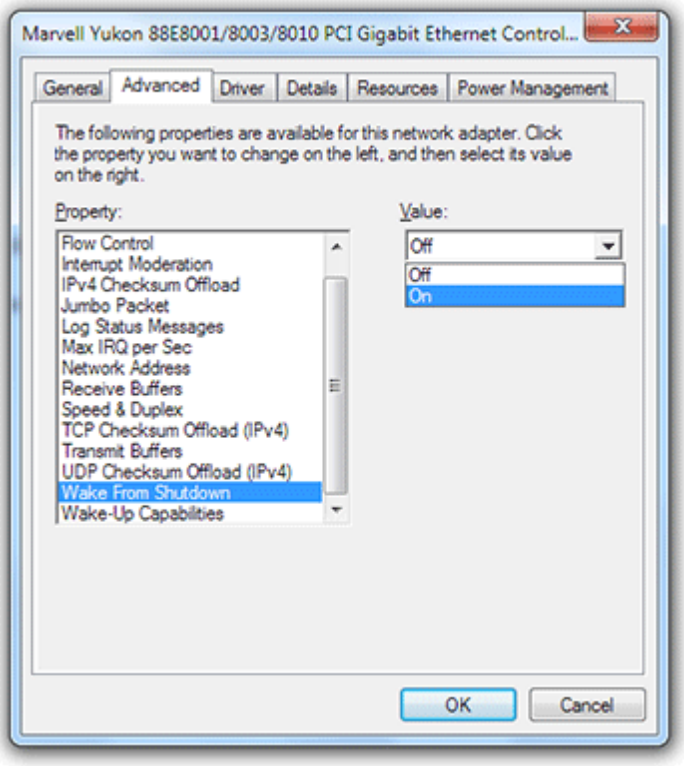
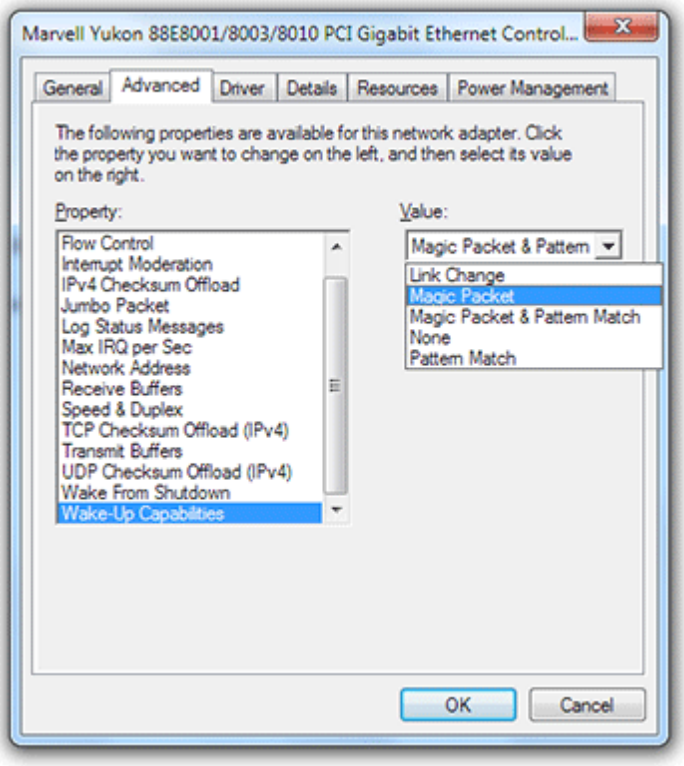



6. For the **Wake-Up Capabilities** property, choose the **Magic Packet** value.




7. Press **OK** to proceed.

If you want to wake the Machines up from Sleep or Hibernate, you must make a few additional Network Adapter settings. For Microsoft® Windows, these settings are described below:

1. Open the **Device Manager**.
2. In the window that opens, expand the **Network adapters** node.
3. Select the adapter you want to configure to receive WOL packets, right -lick it and select the **Properties** item in the drop-down menu.

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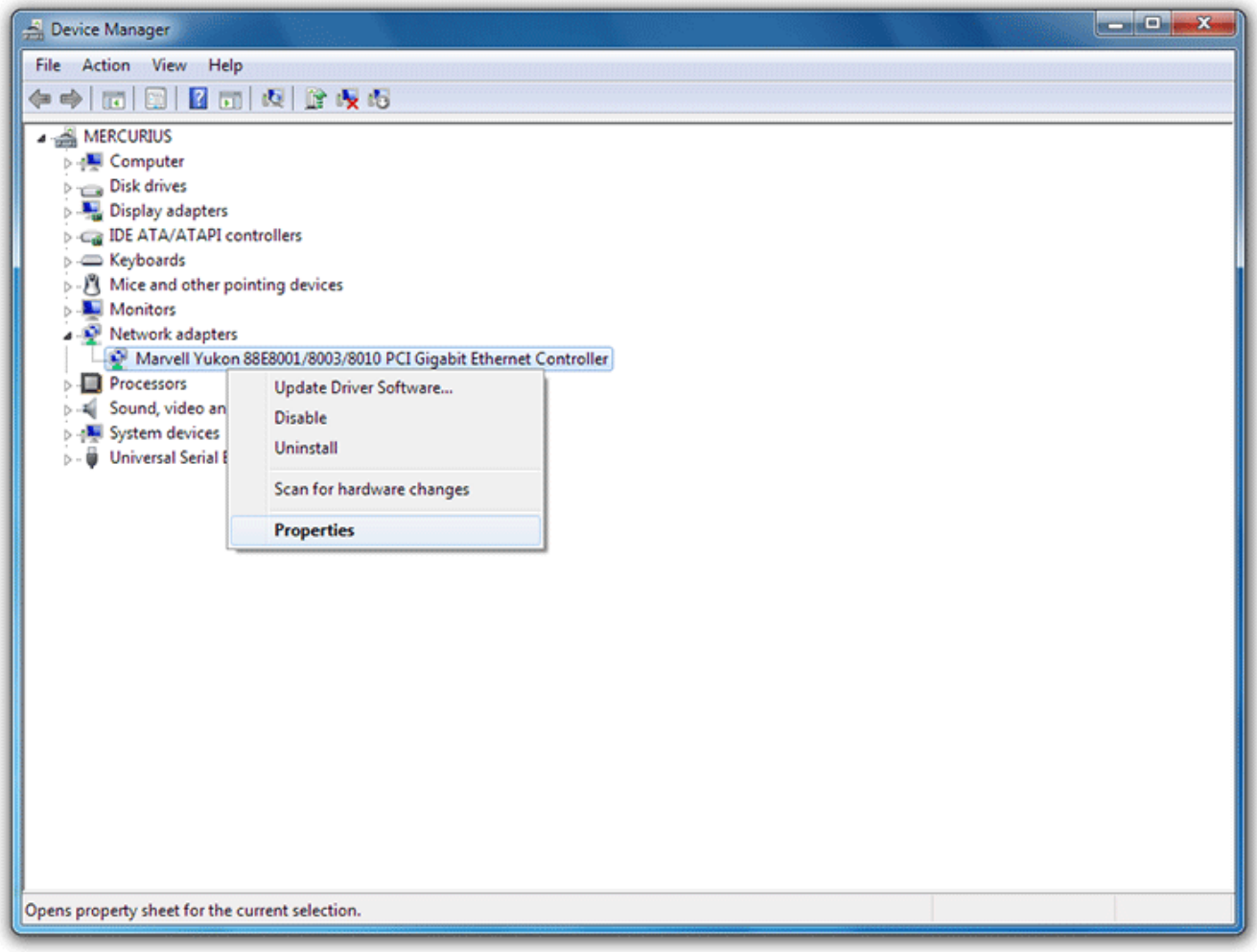
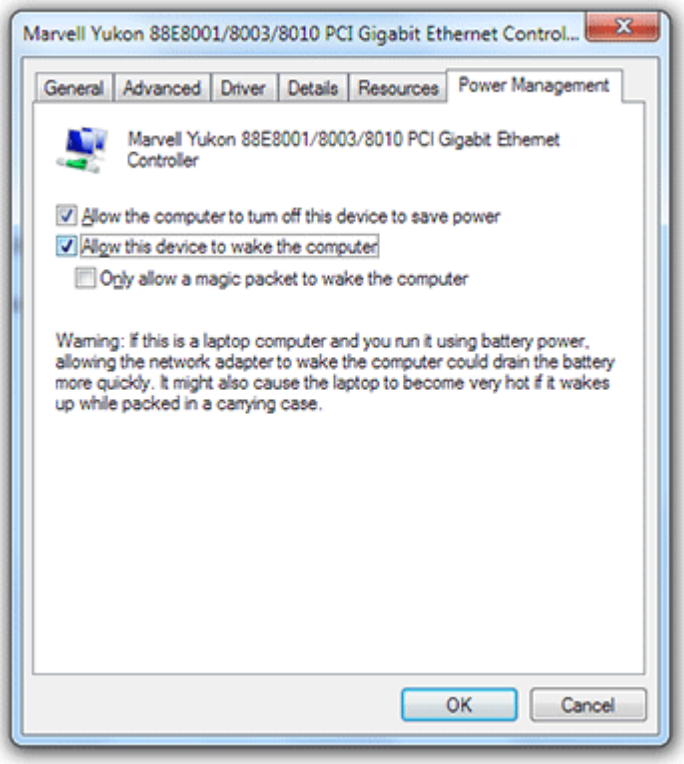



4. In the dialog that opens, switch to the **Power Management** tab.
5. Check the **Allow this device to wake the computer** option.


Marvell Yukon 88E8001/8003/8010 PCI Gigabit Ethernet Control...
General
Advanced
Driver
Details
Resources
Power Management
Marvell Yukon 88E8001/8003/8010 PCI Gigabit Ethernet Controller
Allow the computer to turn off this device to save power
Allow this device to wake the computer
Only allow a magic packet to wake the computer
Warning: If this is a laptop computer and you run it using battery power, allowing the network adapter to wake the computer could drain the battery more quickly. It might also cause the laptop to become very hot if it wakes up while packed in a carrying case.
OK
Cancel

6. Check the **Only allow management stations to wake the computer** option to make sure it

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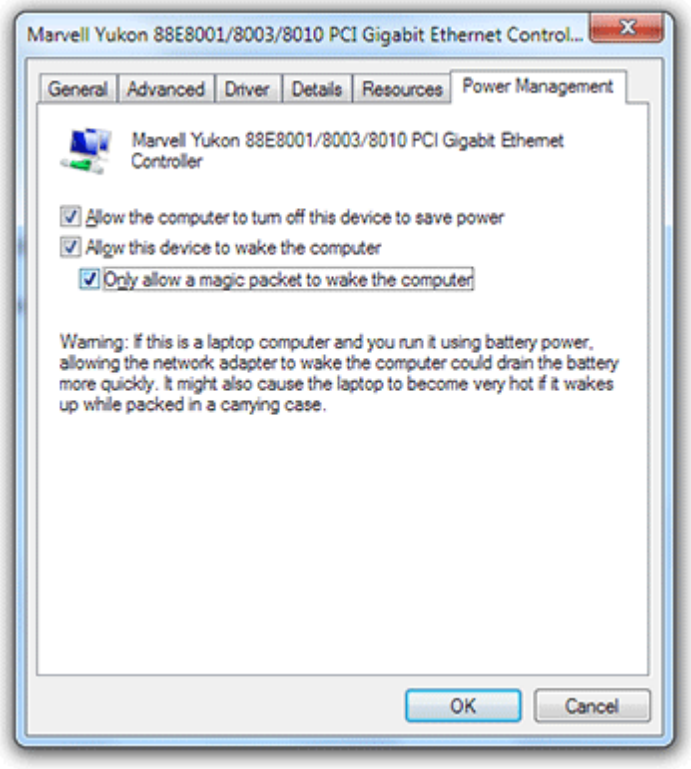
does not wake up on every single network activity that may take place.


Marvell Yukon 88E8001/8003/8010 PCI Gigabit Ethernet Control...
General
Advanced
Driver
Details
Resources
Power Management
Marvell Yukon 88E8001/8003/8010 PCI Gigabit Ethernet Controller
Allow the computer to turn off this device to save power
Allow this device to wake the computer
Only allow a magic packet to wake the computer
Warning: If this is a laptop computer and you run it using battery power, allowing the network adapter to wake the computer could drain the battery more quickly. It might also cause the laptop to become very hot if it wakes up while packed in a carrying case.
OK
Cancel

7. Press **OK** to proceed.

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# Chapter 5: Working with Remote Shutdown

The main purpose of Remote Shutdown is to provide you with an easy-to-use tool for performing a wide range of remote action, such as shutting down, rebooting and waking up Machines over your network. Using the application, you can perform any of those actions immediately, as well as schedule preconfigured tasks. Remote Shutdown comes with a wide range of configuration options that allow you to set up the application to operate Machines from any network segment without any difficulties with just a single click. This chapter is aimed at introducing you to the main features of Remote Shutdown and helping you to configure the application and the remote Machines' hardware for using the its features. After reading this part, you will gain a better understanding of the concept of Remote Shutdown and be able to use it in the future without any problems.

### What's inside

Performing Remote Actions
MAC Addresses view
Hibernate Particular Qualities
Transmission methods overview
Prerequisites of Wake On LAN
MAC Address Scan
Remote Shutdown Server Management
Databases Management

## Performing Remote Actions

Each Remote Action available from Remote Shutdown can be executed immediately or scheduled for execution in future and in this topic we well describe both these processes. Remote Shutdown brings you the availability to benefit from the actions listed in the table below.

| |
|---|
| **Shutdown**<br>The Shutdown action allows you to turn off the set of remote Machines, specifying action timeout, if the notification message is shown during the timeout, notification message itself, if the currently logged on user on the remote Machine can abort the shut down process and if the applications should be forced to close. |
| **Reboot**<br>The Reboot action allows you to reboot the set of remote Machines, specifying action timeout, if the notification message is shown during the timeout, notification message itself, if the currently logged on user on the remote Machine can abort the reboot process and if the applications should be forced to close. |
| **Log Off**<br>The Log Off action allows you to log off the currently active user account on the set of remote Machines, specifying action timeout, if the notification message is shown during the timeout, notification message itself, if the currently logged on user on the remote Machine can abort the log off process and if the applications should be forced to close. |
| **Wake On LAN**<br>The Wake On LAN action allows you to turn on the set of remote Machines by sending WOL message. |
| **Hibernate**<br>The Hibernate action allows you to turn off the set of remote Machines writing RAM content to hard disk, specifying action timeout, if the notification message is shown during the timeout, notification message itself and if the currently logged on user on the remote Machine can abort the hibernate process. |

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### Sleep

The Sleep action allows you to switch the set of remote Machines to stand-by mode for energy saving, specifying action timeout, if the notification message is shown during the timeout, notification message itself and if the currently logged on user on the remote Machine can abort the sleep process.

### Lock Devices

The Lock Devices action allows you to lock all input devices available from the set of remote Machines, specifying action timeout, if the notification message is shown during the timeout, notification message itself and if the currently logged on user on the remote Machine can abort the lock process.

### Unlock Devices

The Unlock Devices action allows you to unlock all input devices being locked on the set of remote Machines.

### Lock Workstation

The Lock Workstation action allows you to lock the selected remote Machines. Only a user currently logged on a remote Machine or a system administrator is able unlock the Machine.

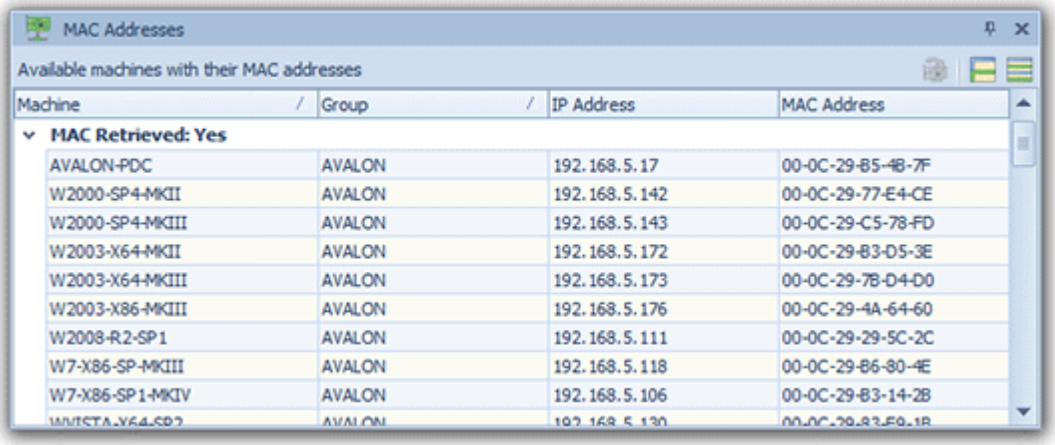
### Send Message

The Send Message action allows you to send a message to the selected remote Machines - the message sent will be displayed in a message dialog.

Wake On LAN needs to know the MAC address of the remote machine Ethernet adapter to succeed, so make sure that the Machines' data for Machines you are going to turn on by sending the WOL message had been successfully refreshed by Remote Shutdown. If you are not sure about it, please select these Machines and press **Retrieve MAC Address** button from the **Network** Ribbon group of the **Remote Shutdown** Ribbon page, wait for the task to complete and see the **Application Log** view to make sure the Machines' is successfully.

## All Machines View

The **All Machines** view Pic 1 is you information on all Machines available in the application and their MAC addresses, if retrieved. Using this view, you can easily identify Machines whose MAC addresses have not been retrieved, to be able to wake the Machines up.




Pic 1. The All Machines view

The functions of retrieving Machines' MAC addresses, performing Wake-on-LAN for selected Machines and viewing Machines' properties are available from the **All Machines** view pop-up menu Pic 2. In the pop-up menu, you can also find the **Configuration** sub-menu that allows opening the **MAC Address Scan** preferences.

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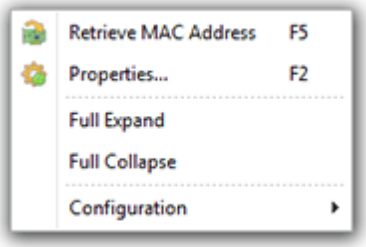


Pic 2. The All Machines view pop-up menu

By default, the Machines in the **All Machines** view are grouped by the sign showing if the MAC address is retrieved, but you can easily reset this grouping or customize it to suit your needs by choosing other columns and filter data – see the **Grouping and Filtering Data** topic for details.

## Hibernate Particular Qualities

On Windows® computers, hibernation is available only if all hardware is ACPI and Plug-and-play compliant, and additionally all drivers are PnP-compatible. Also Hibernate feature must be turned on in the operating system power configuration. If the Hibernate mode is disabled in the Operating System of the remote Machine it will be switched to a Sleep (Standby) mode, but not into a hibernation. To get to know how to configure the Operating System on the remote Machine to support Hibernate mode refer the documentation on the Operating System itself.

## Transmission methods overview

Wake-on-LAN (or WOL in short) is a feature provided by network adapters and motherboards that allows the computer to be powered up a certain activity in the network is detected. Making use of WOL decreases security risks, since the computer is not left on connected and unattended for prolonged periods of time; it saves power and thus reduces your bills; ultimately, it extends the life of the components.

EMCO Remote Shutdown uses two transmission methods for sending wake-up packets, namely:

- Directed Broadcast
- Unicast

Both methods are described in detail below.

### Directed Broadcast method

Directed Broadcasts, as a transmission method for sending wake-up packets to a Machine in Remote Shutdown, uses the Media Access Control (MAC) address and IP subnet address of the target Machine from the application database. A wake-up packet is sent to the Machine's last known subnet and is then broadcast to all Machines on that subnet. For this method to be successful, all intervening routers must be configured to forward directed broadcasts. During such broadcast transmission, the Machine with the MAC address specified in the wake-up packet will respond.

Since this transmission method uses the subnet address rather than the IP address, it will succeed even if the target Machine has changed its IP addresses but remained in the same subnet. Please note that subnet-directed broadcasts are not supported by IPv6 and are often disabled on routers.

### Unicast method

Unicast, as a transmission method for sending wake-up packets to a Machine in Remote Shutdown, uses the IP address of the target computer from the application database to route the packets to the target computer's subnet, and it uses the Media Access Control (MAC) address of the target Machine from the database to generate a wake-up packet. When a wake-up transmission reaches the target Machine's subnet, the wake-up packet is sent directly to the target Machine.

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If the target Machine has changed its IP address since it last sent its inventory information, the wake-up packet will reach a wrong Machine but will not wake it up because the MAC address in the wake-up packet transmission will not match the actual one.

### Directed Broadcast and Unicast transition method comparison

| Transmission Method | Advantages | Disadvantages |
|---|---|---|
| Directed Broadcast | Higher success rate than unicast with computers that frequently change their IP addresses within the same subnet.<br><br>No switch reconfiguration is required.<br><br>High compatibility with computer adapters in all sleep states, because directed broadcast was the original transmission method for sending wake-up packets. | Less secure solution than unicast, because an attacker could send continuous streams of ICMP echo requests from a falsified source address to the directed broadcast address causing all of the hosts to reply to that source address. This type of denial-of-service attack is commonly called a smurf attack and is usually mitigated by not allowing directed broadcasts. If your routers are configured to allow directed broadcasts, the following additional configuration is recommended for security reasons:<br><br>The routers should be configured to allow only IP-directed broadcasts from the Remote Shutdown site server using the UDP port number specified on the **WOL Configuration** preference page.<br><br>Reconfiguration of all intervening routers may be required to enable directed broadcasts.<br><br>Consumes more network bandwidth than unicast transmissions.<br><br>Supported by IPv4 only; IPv6 is not supported. |
| Unicast | More secure solution than directed broadcasts, because the packet is sent directly to the required computer rather than to all computers in the subnet.<br><br>Reconfiguration of routers is not required.<br><br>Consumes less network bandwidth than directed broadcast transmissions.<br><br>Supported by IPv4 and IPv6. | Wake-up packets will not be able to find the target computers that have changed their subnet address since the last scheduled hardware inventory.<br><br>Switches may need to be configured to forward UDP packets.<br><br>Some network adapters may not respond to wake-up packets in all sleep states when unicast is used as the transmission method. |

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# Prerequisites of Wake-on-LAN

The following requirements should be met for the Wake-on-LAN operation to succeed:

- The Machines must be configured to respond to wake-up packets received by the network adapter and in the Machine's BIOS. See the Configuring Machines' hardware for Wake-on-LAN for details on the network adapter and BIOS configuration.
- The network adapters must support the standard Magic Packet format. See the Configuring remote Machines' Network Adapter for details on the network adapter configuration.
- Older motherboards must have a WAKEUP-LINK header onboard connected to the network adapter via a special 3-pin cable; however, systems supporting the PCI 2.2 standard and having a PCI 2.2 compliant network adapter do not usually require a Wake-on-LAN cable as the required standby power is relayed through a PCI bus. PCI version 2.2 supports PME (Power Management Events). PCI adapters send and receive PME signals via a PCI socket directly, without the need for a Wake-on-LAN cable.
- The Machines should use an ATX power supply meeting the ATX 2.01 specifications.
- The target Machine must be in the Shut Down state. That means that the AC adapter should not be turned off after the last Shut Down. For example, if the machine was switched off due to a power outage, WOL will not work. If you want to wake the Machines up from Sleep or Hibernate, you must make some additional network adapter settings. See the Configuring remote Machines' Network Adapter for details.

## Prerequisites of Wake-on-LAN across different subnets (or VLANs)

You may wake up remote Machines from different subnets using Remote Shutdown with the help of each of the transmission methods (Directed Broadcast and Unicast), provided a specific set of requirements is met for at least one of the methods.

### Directed Broadcast transmission method prerequisites

All routers/gateways/switches between the Remote Shutdown site server and the target Machines must allow Directed Broadcasts and must support the IPv4 protocol. This ensures that the WOL packets are not blocked.

> Allowing any type of Directed Broadcast on routers/gateways/switches makes the network vulnerable to "smurf" attacks though the Internet. In a "smurf" attack, the attacker sends ICMP echo requests from a falsified source address to a directed broadcast address causing all the hosts in the target subnet to send replies to the falsified source. By sending a continuous stream of such requests, the attacker can create a much larger stream of replies, which can completely inundate the host whose address is being falsified.

To protect your network from "smurf" attacks, you may allow only certain types of Directed Broadcasts to go throw the routers/gateways/switches (i.e. configure the access list). In case with Remote Shutdown Wake-on-LAN packets, you should only allow receiving UDP packets from the machine running Remote Shutdown through the port specified on the **WOL Configuration** preference page. The access list should be configured on all routers/gateways/switches along the Wake-on-LAN packet path.

> For detailed information on configuring the access list on routers/gateways/switches, refer to the user manual provided by the hardware manufacturer.

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To wake up a Machine over the Internet, an appropriate port needs to be forwarded from the WAN side to the LAN side of the router. Since a Machine that is not turned on doesn't have an IP address, the packet sent to wake the Machine needs to be forwarded to all Machines on the LAN side of the router in order to ensure it gets to the Machine it is intended for. The protocol that needs to be forwarded is UDP; it is not necessary to forward the TCP protocol. The IP address the packet needs to be forwarded to changes depending on the network mask you are using on your LAN. The default network mask is 255.255.255.0. If you are using this mask, you should forward traffic destined to your WOL port to xxx.xxx.xxx.255. If you are using the default settings of the router, this address would probably be 192.168.1.255. 255 in the address using the default network mask signifies that the router should forward any information sent to the indicated port to all computers on the LAN side. If you are using the default router settings with Remote Shutdown, simply forward all UDP traffic to the port specified on the **WOL Configuration** preference page to 192.168.1.255. If there is an option of specifying external and internal ports, the same port number should be used for both external and internal ports.

### Unicast transmission method prerequisites

For a Wake-on-LAN operation with the help of the Unicast transmission method to succeed, the routers should have a sufficient APR (Address Resolution Protocol) cache life time, or the IP addresses of the Machines you want to wake up should be defined as static entries in the ARP cache. If they are defined as static they will never be removed from the cache. As long as the target Machine's IP address is available in the router's ARP cache, Wake-on-LAN packets are delivered successfully and the Machine can be woken up. If the IP address entry is removed from the ARP cache, it is no longer possible to deliver Wake-on-LAN packets to the target Machine using the Unicast transmission method.

> Please be aware that a significant increase of the ARP cache may cause unexpected errors in the network.

Get detailed information about Wake-on-LAN using the Unicast transmission method

## MAC Address Scan

Remote Shutdown needs to know the remote Machines' MAC addresses to be able to provide you with the Wake-on-LAN feature. Media Access Control (MAC) address is a unique identifier assigned to most network adapters and network interface cards (NICs) by the manufacturer for identification and used in the Media Access Control protocol sub-layer.

MAC Address Scan is executed automatically during the Network Scan process or when Machines are being added manually. It is also possible to execute MAC Address Scan for selected Machines manually using the **Retrieve MAC Address** button from the **Network** Ribbon Group.

### Methods of retrieving MAC address

Remote Shutdown supports four methods of retrieving MAC addresses from remote Machines. The methods to be used should be specified on the **MAC Address Scan** preference page. Each method has its pros and cons and is described in detail below.

#### Neighbor Discovery

ARP (Address Resolution Protocol) is used to identify the MAC address associated with a certain IP address. If a machine has a packet bound for another IP on a locally connected Ethernet network, it sends a broadcast Ethernet frame containing an ARP request to the Ethernet. That packet will be received by all machines with the same Ethernet broadcast address. If a machine receiving the ARP request hosts the requested IP, it will respond with the link layer address, at which it will receive packets for that IP address. Once the requester receives the response packet, it will start associating the MAC address with the respective IP address. That information is stored in the ARP cache, which is available on individual network adapters as well as on IP routers.

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The Neighbor Discovery method can retrieve MAC addresses only for the Machines located in the same subnet as the Remote Shutdown hosting Machine.

### NetBIOS

NetBIOS (Network Basic Input/Output System) provides services related to the session layer of the OSI model allowing applications on separate computers to communicate over a local area network.

### WinAPI

Windows API is Microsoft's core set of application programming interfaces (APIs) available in the Microsoft Windows operating systems.

### WMI

Windows Management Instrumentation (WMI) is a set of extensions to the Windows Driver Model that form an operating system interface through which instrumented components provide information and notification. WMI is used to access and manage data on remote computers. Remote connections in WMI are affected by Windows Firewall and Distributed Component Object Model (DCOM) settings. Windows Firewall is enabled by default and set to block any data requests from remote Machines and callbacks resulting from asynchronous calls. The firewall and DCOM settings must be configured to allow such connections. For Windows Vista and later OS, it is also required to configure User Account Control (UAC).

Changing DCOM settings may allow remote access to the Machine for low-rights users. Refer to the Setting DCOM Security to Allow a User to Access a Computer Remotely document for the instructions on DCOM security configuration.

### Methods comparison

| Method | Advantages | Disadvantages |
|---|---|---|
| Neighbor Discovery | High processing speed. Administrative privileges on remote Machines are not required. | Ability to process Machines only within a local subnet. |
| NetBIOS | High processing speed. Administrative privileges on remote Machines are not required. | Ability to process Machines only within a single physical network. Requires that the NetBIOS protocol should be enabled. |
| WinAPI | Ability to process any kind of Machine regardless of its location. | Lower processing speed compared to other methods. Requires administrative privileges on remote Machines. |
| WMI | Ability to process any kind of Machine regardless of its location. | Requires administrative privileges on remote Machines. Turned off by default on most Machines. |

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## Remote Shutdown Server Management

Remote Shutdown application consists of the client and server parts to provide you with the ability of executing scheduled tasks while there is no active user session or the application user interface is not running. So, the client application is launched to perform enumeration, configure tasks execution and results review, and the server application is running together with the operating system. When the client application is launched it automatically tries to connect to the Remote Shutdown server.

**Connect**

The **Connect** button should be used to connect to the Remote Shutdown server application after the client was disconnected. When the client is connected it is replaced with the **Disconnect** button to be used to disconnect from the server.

**Control**

The **Control** button from the **Server Management** group of the **Application** Ribbon page should be used to manage the server application state. You can change an account used by the server application as long as start and stop the server using the sub-menu of this button.

Using the service management features you can disconnect from the server, switch an account the server is logged on as and manage its state.

Please note that it is strongly recommended for the Remote Shutdown Server to be logged on as a user account. When the service is logged on as local system, it will fail to connect to remote Machines unless the credentials are provided in the alternate credentials settings of the application. When using an user account, it is used by default to connect to remote Machines, though it is still possible to provide alternate credentials to connect to different domains within the application.

As it was already said, the client application automatically connects to the server on its startup, so when Remote Shutdown is started it is ready for work. But you can disconnect from the server to perform maintenance using the **Disconnect** button from the **Server Management** group of the **Application** Ribbon page. When disconnected, the **Disconnect** button is replaced with the **Connect** one to reconnect to the server.

The most important of the service management features is an ability of changing an account used by the server. This account is used for performing network enumeration and operating remote Machines if the alternate credentials are not specified, though it is still possible to provide alternate credentials to connect to different domains within the application. You can switch the account using the **Switch Account** menu item from the **Control** button drop-down.

The one of the service management features is an ability to start and stop the Remote Shutdown server for maintenance. These options are also available from the **Control** button drop-down.

The elevation of privileges is required for each of the actions available from the **Control** button drop-down, so you may see the UAC prompt when running the application on Machines that have Microsoft Windows Vista or higher installed.

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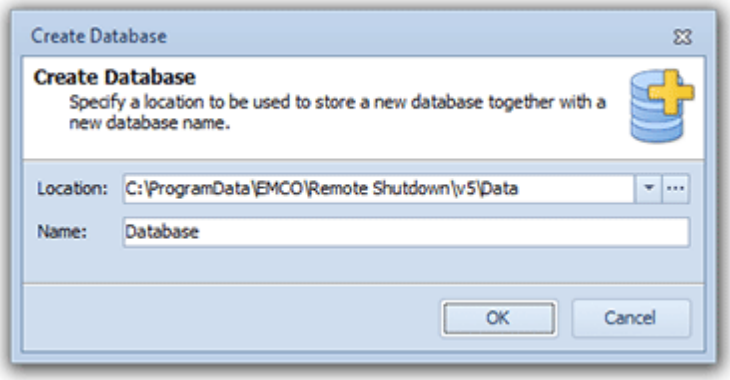
## Databases Management

Remote Shutdown allows you to switch between different databases while working with it. On the first application startup the default database is created automatically, but then you can create more databases, containing different data, and switch between them.

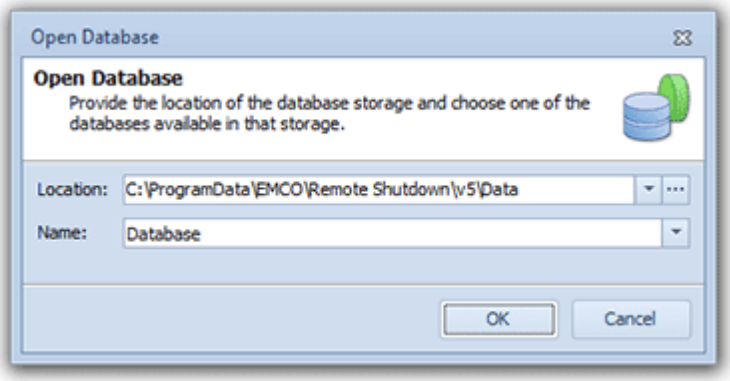
The features of creating a new database and opening another database can be found under the **Database** menu of the **Application Menu**. To create a new database choose the **Create Database** item. The **Create Database** dialog will appear on the screen, proposing you to choose the database location and provide the database name. Pic 1




**Pic 1. Creating a new database**

After the location is chosen and the database name is provided, press **OK** button to proceed with database creation. As soon as the database is created it is automatically opened so you can start using it.

If you have several databases and want to switch between them you should used the **Open Database** item from the **Database** menu. In the **Open Database** dialog you should provide the database location and choose the name of required database. Pic 2




**Pic 2. Opening an existing database**

When the name and location are chosen, press **OK** button to switch to the selected database.

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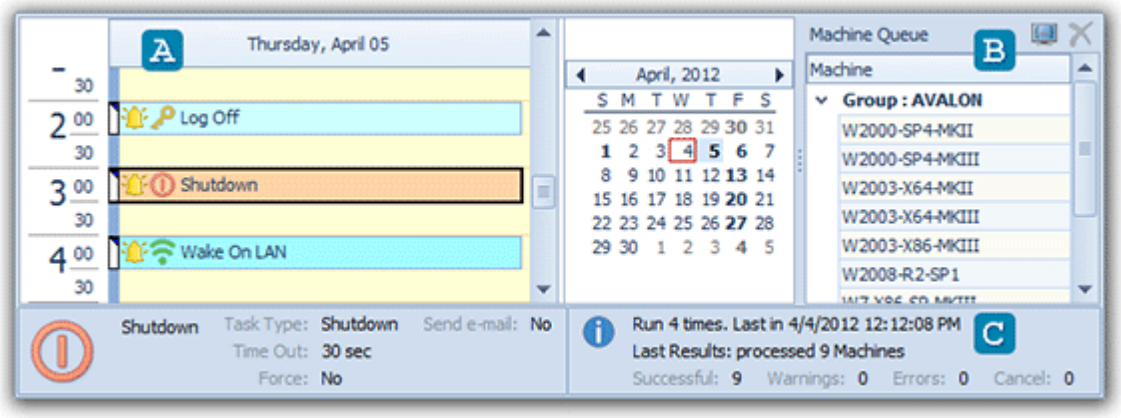
# Chapter 6: Calendar View

The **Calendar** view Pic 1 is located at the very middle of the Remote Shutdown main screen and consists of three parts: the **Scheduling** area A, the **Machine Queue** pane B and the **Task Details** pane C.




**Pic 1. The Calendar view**

In this chapter, you will be introduced to all these parts, which will make it easier for you to understand the concept of the Calendar view and to get to know the set of available features better.

## What's inside

Scheduling Area
Date Navigator
Machine Queue
Task Details Pane

## Scheduling Area

The **Scheduling** area Pic 1 shows the scheduled Tasks on a timeline where the level of details depends on the chosen view and zoom factor. On the right of the **Scheduling Area** you can find the **Date Navigator** pane that can be used for navigation within the **Scheduling Area**. This chapter describes every view that can be chosen for the **Scheduling** area and their advantages, and provides you with an overview of the navigation features.

> You can drag Machines from the **Network Browser** and **Custom Grouping** panes and drop them on the **Scheduling** area. You are offered to schedule a new task if Machines are dropped on an empty space. Machines dropped on a task are added to its Machine Queue.

Within the **Scheduling** area, you can see the name and state images for every task, and the task's location on the timeline shows its execution time. The state images allow you to see the type of each task, understand if the task is recurrent and if it should still be executed or has already been executed. Detailed information on every task is available in the tool tip shown when you are hovering the mouse pointer over this task in the **Scheduling** area.

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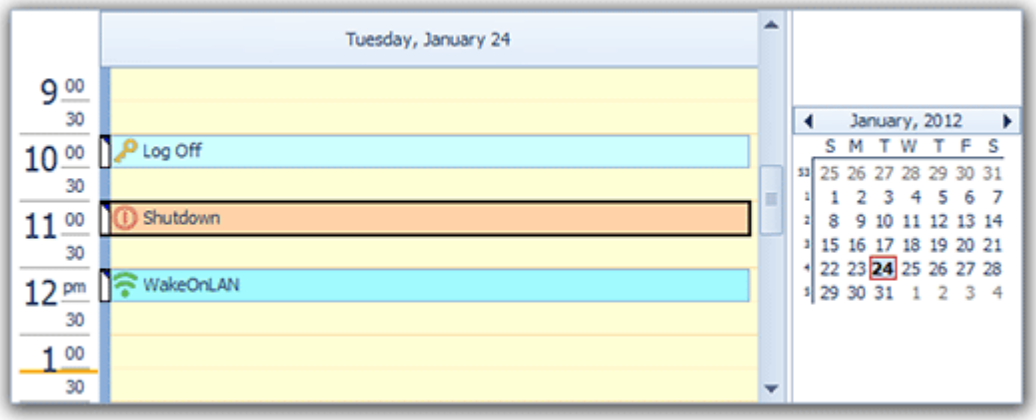
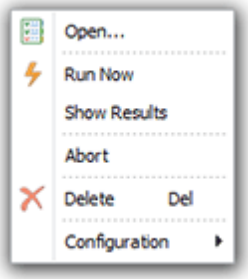



**Pic 1. The Scheduling area**

A quick access to the options of scheduling a new task, opening an already existing task for edit, running the selected task or removing it from the schedule is available from the pop-up menu Pic 2 of the **Scheduling** area.




**Pic 2. The Scheduling area pop-up menu**

Now that the **Scheduling** area is fully described, we will show you the range of the available views, and describe each view in details so that you can understand its concept and choose the views you feel comfortable with while using Remote Shutdown in your work.

## Scheduling area views

The **Scheduling** area can be displayed in different view modes giving you different levels of detail. You can choose among five views: Day View, Work Week View, Week View, Month View and Timeline View. The view chooser, along with the zooming editor, is located in the main screen status bar next to the progress bar. Let us take a closer look at each view available for representation of the **Scheduling** area. Each view is designed to help you solve a specific problem without any difficulties.

### Day View

The **Day View** button located on the status bar should be used to switch the **Scheduling** area to the Day View. If the Day View is already chosen, this button is highlighted.

The Day View offers the most detailed picture of tasks during a single day or a couple of days. It displays tasks within vertical timelines where the task's topmost edge corresponds to its start time. The time ruler is displayed to the left of the Day View. If the day chosen in the **Date Navigator** pane is a part of a working week, the working hours are highlighted on the timeline. The timeline header is highlighted if the chosen day is the current date. The current time is marked with a stroke on the time ruler.

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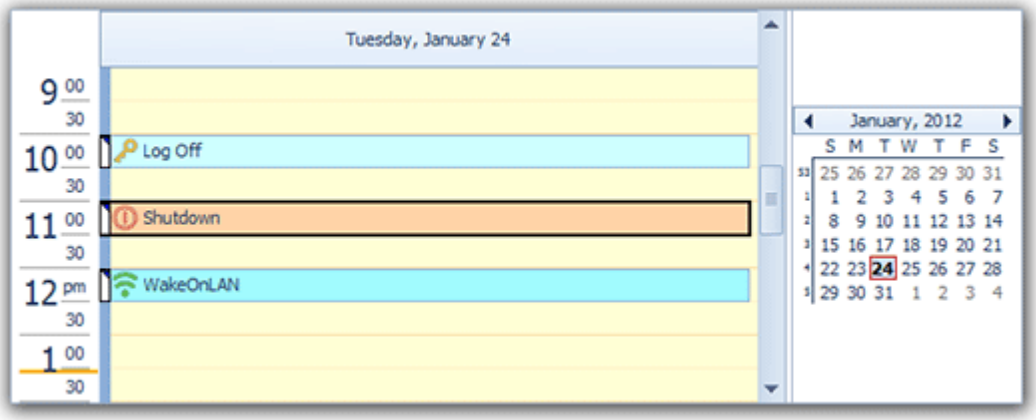


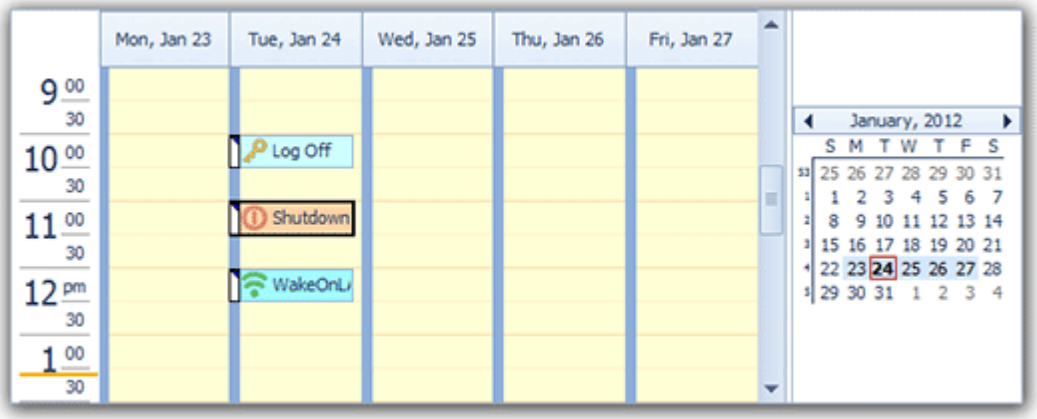

Pic 3. The Scheduling area in the Day View

Scroll buttons displayed at the top or bottom of the time ruler indicate if additional tasks exist in any non-visible area of the Day View. Those buttons can be clicked to scroll to the next/previous tasks. If there are no tasks available on the current timeline, the **Next Task** and **Previous Task** buttons displayed on the timeline are used for navigation.

### Work Week View

The **Work Week View** button located on the status bar should be used to switch the **Scheduling** area to the Work Week View. If the Work Week View is already chosen, this button is highlighted.

The Work Week View is similar to the Day View and shows the days chosen as working days in the **Calendar Options**. The **Calendar Options** enables you to specify both the working days and the working hours; hence you can configure this view to fully fit your working schedule.




Pic 4. The Scheduling area in the Work Week View

This view is specially designed for users who want to work with Remote Shutdown and see the same level of detail as for the Day View for the whole work week.

### Week View

The **Week View** button located on the status bar should be used to switch the **Scheduling** area to the Week View. If the Week View is already chosen, this button is highlighted.

The Week View displays tasks for any given weekly period. The start time is displayed using digits, and the current date is indicated by highlighting the corresponding date header.

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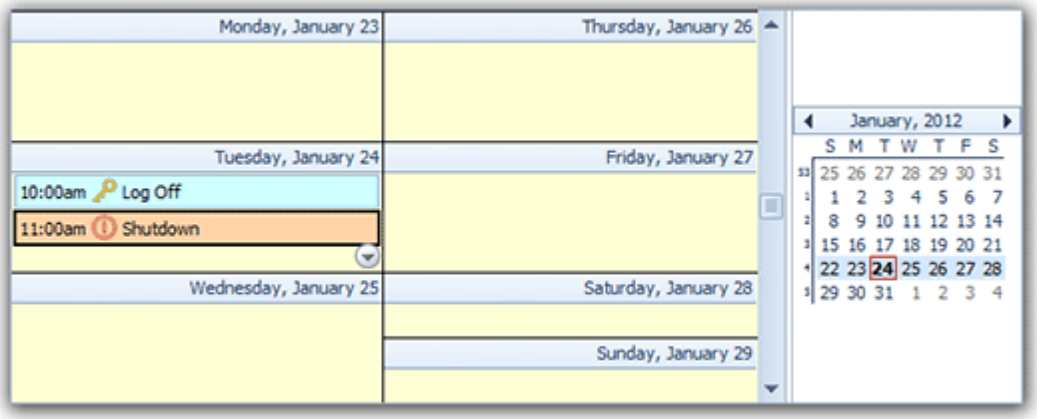

Monday, January 23
Tuesday, January 24
10:00am Log Off
11:00am Shutdown
Wednesday, January 25
Thursday, January 26
Friday, January 27
Saturday, January 28
Sunday, January 29
January, 2012
S M T W T F S
25 26 27 28 29 30 31
1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31 1 2 3 4

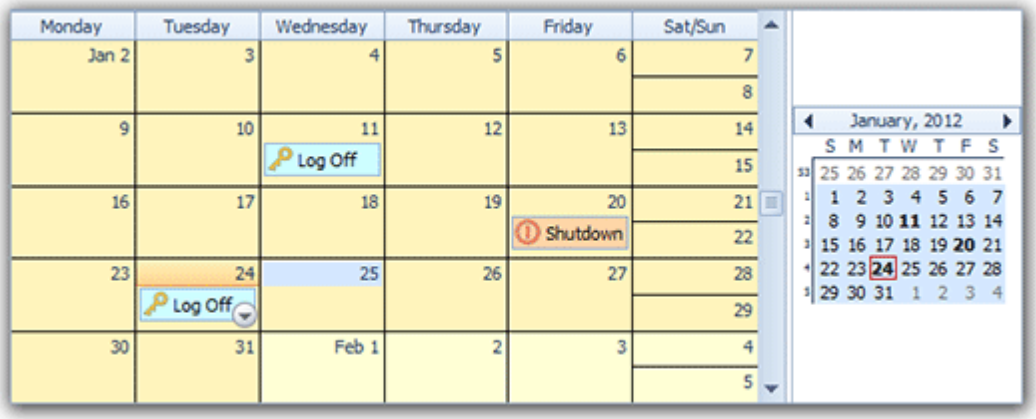
**Pic 5. The Scheduling area in the Week View**

If there are any existing tasks that do not fit into the screen area, the down arrow button is displayed. Clicking this button switches the representation to the corresponding date in the Day View.

### Month View

The **Month View** button located on the status bar should be used to switch the **Scheduling** area to the Month View. If the Month View is already chosen, this button is highlighted.

The Month View is designed to allow you to browse and analyze long-term plans. This view positions days one after another horizontally so that they constitute weeks, while individual weeks are placed one under another. The dates belonging to different months are automatically colored and the weekends are compressed. The start time is displayed using digits, and the current date is indicated by highlighting the corresponding date header.




**Pic 6. The Scheduling area in the Month View**

If there are any existing tasks that do not fit into the screen area, the down arrow button is displayed. Clicking this button switches the representation to the corresponding date in the Day View.

### Timeline View

The **Timeline View** button located on the status bar should be used to switch the **Scheduling** area to the Timeline View. If the Timeline View is already chosen, this button is highlighted.

The Timeline View is the most customizable one. This view type arranges tasks on horizontal timelines representing the time scales chosen from the pop-up menu.

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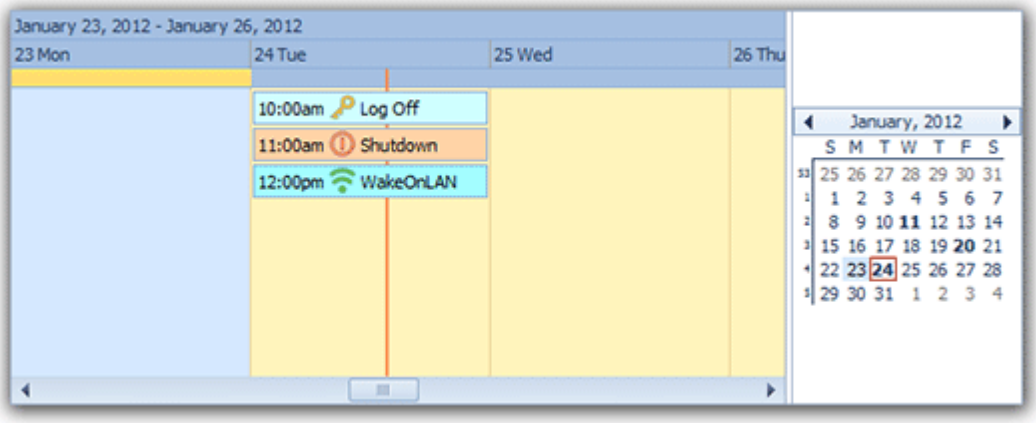


**Pic 7. The Scheduling area in the Timeline View**

This view can be used to navigate throughout the **Scheduling** area without any limitations and change of the level of detail if needed.

## Navigation within the Scheduling area

Remote Shutdown provides you with easy-to-use tools for navigating the **Scheduling** area. The **Navigation** group on the **Ribbon** bar contains actions that can help you to quickly navigate within the currently selected view. By using those actions, you can move forward, or backward, or jump to the today's date.

### Backward

The **Backward** button from the **Navigation** Ribbon group should be used to navigate backward in the currently selected view within the **Scheduling** area.

### Forward

The **Forward** button from the **Navigation** Ribbon group should be used to navigate forward in the currently selected view within the **Scheduling** area.

### Today

The **Today** button from the **Navigation** Ribbon group enables you to quickly navigate to the today's date within the **Scheduling** area.

Another noteworthy feature ensures that any required date chosen within the **Date Navigator** is also shown within the Scheduling area. Besides, when a range of dates is chosen within the date navigator, the view is automatically switched to the appropriate one to cover the chosen range of days. Furthermore, in each view you can jump to any date using the **Go to Date** option from the pop-up menu.

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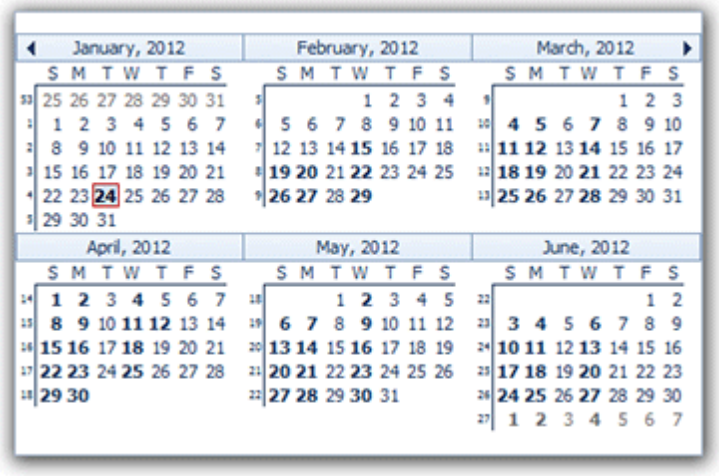
## Date Navigator

The **Date Navigator** pane is displayed in the right of the **Scheduling** area. It should be used to select the dates to be displayed within the **Scheduling** area. The view type used for the Scheduling area is automatically adjusted to accommodate to the dates selected in the **Date Navigator** pane.




**Pic 1. The Date Navigator pane**

The **Date Navigator** can be configured to help you find scheduled tasks and perform weekly planning.

It is possible to drag a task from the **Scheduling** area and drop it on any date in the **Date Navigator** to schedule that task or its copy on that date.

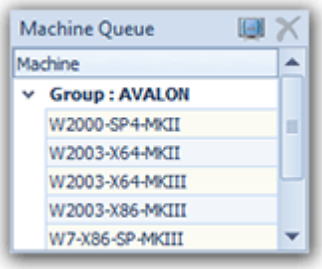
You can configure the view to display the dates with tasks in bold font, and turn on the week numbering on the **Calendar Options** preference page.

## Machine Queue

The **Machine Queue** pane is displayed on the right of the **Calendar** view. It displays the Machines that will be involved in the task selected within the **Scheduling** area. You can add Machines to the task's Machine Queue and remove them anytime you want.

You can drag Machines from the **Network Browser** and **Custom Grouping** panes and drop them on the **Machine Queue** pane – the Machines dropped are added to the task's Machine Queue.

The **Machine Queue** pane allows you to review the Machines that will be involved in particular tasks and manipulate their scope quickly and easily while navigating between the tasks.




**Pic 1. Machine Queue pane**

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You can change the grouping settings that by default group the Machines from this view by the Group they are located in. Do not hesitate to change the visible columns and the grouping principles the way you want. By the way, you can always reset the application view's layout to the default settings using the **Reset Layout** command from the **Ribbon** bar.

**Add Manually**

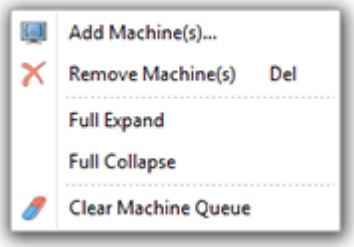
The **Add Machine(s)** button from the **Machine Queue** pane toolbar should be used to add Machines to the scope of Machines involved in the selected task.

**Remove**

The **Remove Machine(s)** button located on the toolbar of the **Machine Queue** pane can be used to remove the selected Machines from the selected task's Machine Queue.

To add Machines to the task's Machine Queue, press the **Add Machine(s)** button on the toolbar of the **Machine Queue** pane. If you want to remove some Machines from the Machine Queue, you can use the **Remove Machine(s)** button.

It is also possible to add Machines to the task's Machine Queue editor, remove selected Machines from the task's Machine Queue, expand and collapse grouping rows by using the pop-up menu of the **Machine Queue** pane. Pic 1




**Pic 2. The Machine Queue pane pop-up menu**

See the Machine Queue Management section for details on editing the Machine Queue of any Task.

## Task Details Pane

The **Task Details** pane is located at the bottom of the **Tasks and Schedule** view. It displays information on the items selected in the **Scheduling** area. The behavior of this pane is similar to that of the Windows Explorer information pane. When an item is selected, detailed information on it is displayed including its name, comment, type and execution statistics.

Shutdown
Task Type: Shutdown
Force: Yes
Time Out: 30 sec
Send e-mail: Yes
Allow Cancel: Yes
Run 1 time - 4/3/2012 6:59:57 PM
Last Results: processed 9 Machines
Successful: 9 Warnings: 0 Errors: 0 Cancel: 0

**Pic 1. The Task Details pane**

The **Task Details** pane is very useful if you want to review brief statistics on the task execution such as the results of the last execution, the number of runs, etc. Thus, you can navigate among the tasks and review their executions statistics in real time.

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# Chapter 7: Executing and Scheduling Tasks

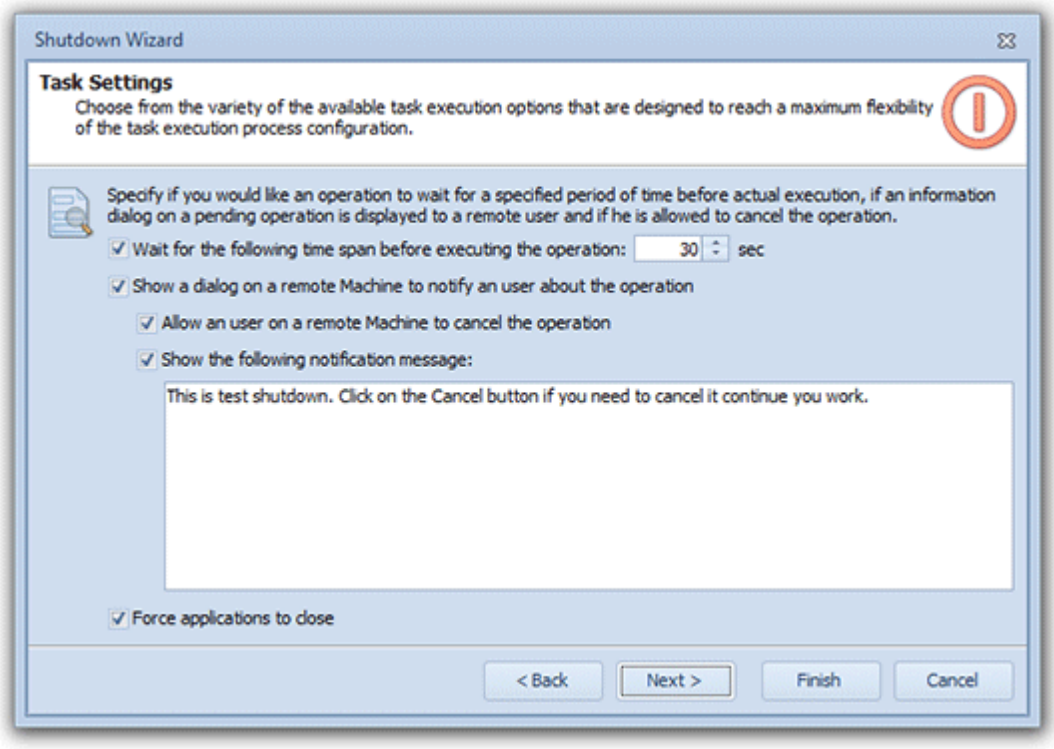
With Remote Shutdown, you can easily create a prefigured task for future execution. Furthermore, the application is provided with a powerful engine for executing tasks and scheduling their execution using the mechanism similar to that of Microsoft® Office Outlook Calendar. This ensures the same scheduling functionality that you are used to work with. The set of features connected with scheduling includes the options of scheduling both one-time and recurrent tasks, switching between different views, zooming views, a convenient navigation and the possibility of reviewing a detailed report on every task execution regardless of whether the task is scheduled or not.

## What's inside

Executing Tasks
Scheduling Tasks
Aborting Tasks Execution
Task Execution Options
Notification Settings
Configuring Recurrence
Task Execution Confirmations
Task Execution Results
Machine Queue Management

## Executing Tasks

Each of the available remote actions can be executed immediately or scheduled for execution. To execute the remote action immediately you should choose the **Execute** item from the action drop down from the **Remote Actions** Ribbon group. E. g. if you want to execute **Hibernate** immediately you should choose **Hibernate** ▸ **Execute Hibernate**. The wizard will appear on the screen to help you with the task configuration. For all task types, except **Wake On LAN**, and **Unlock Devices**, the first page of the wizard allows you to configure the type specific options for the task, e. g. if the action chosen is **Shutdown**, on the next page you are proposed to specify action timeout, if the notification message is shown during the timeout, notification message itself, if the currently logged on user on the remote Machine can abort the shut down process and if the applications should be forced to close. Pic 1


Shutdown Wizard
Task Settings
Choose from the variety of the available task execution options that are designed to reach a maximum flexibility of the task execution process configuration.
Specify if you would like an operation to wait for a specified period of time before actual execution, if an information dialog on a pending operation is displayed to a remote user and if he is allowed to cancel the operation.
Wait for the following time span before executing the operation:
30
sec
Show a dialog on a remote Machine to notify an user about the operation
Allow an user on a remote Machine to cancel the operation
Show the following notification message:
This is test shutdown. Click on the Cancel button if you need to cancel it continue you work.
Force applications to close
< Back
Next >
Finish
Cancel

**Pic 1. Specifying Shutdown action configuration**

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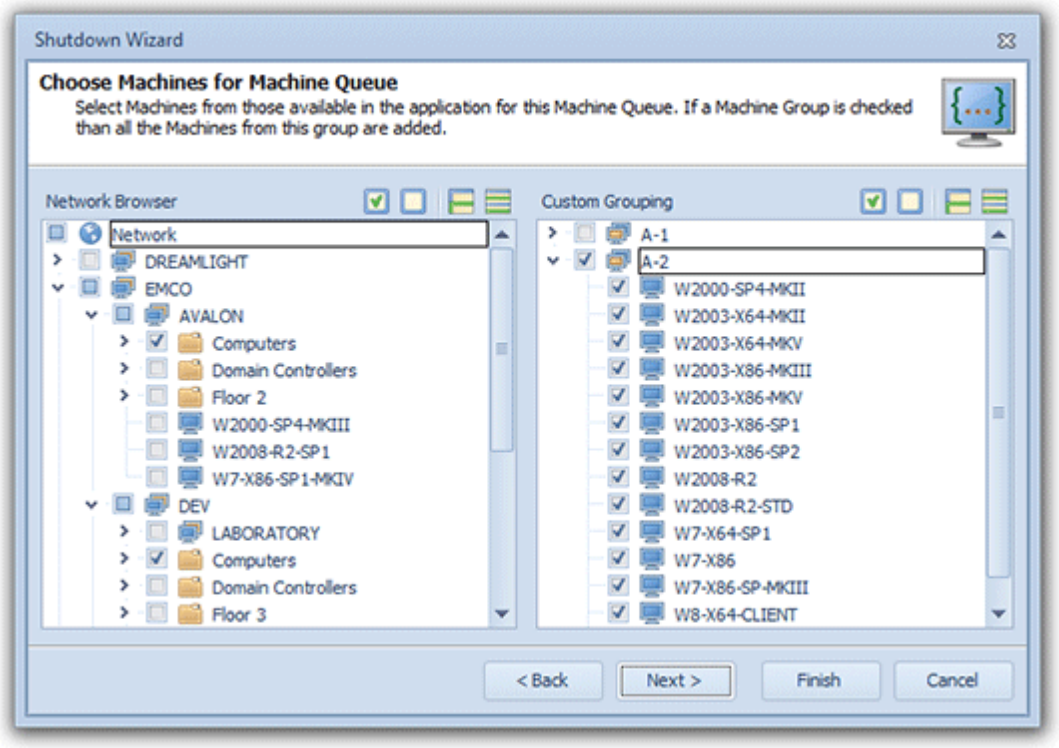
For the **Wake On LAN** task the first page provides you with a brief information on the requirements that should be met for the Wake-on-LAN to succeed.

On the next step of the wizard you can choose the Machines the task should work with. Pic 2 You can choose between the Machines available in the **Network Browser** and **Custom Grouping**.




**Pic 2. Choosing the scope of operable Machines**

After the Machines are chosen you can press **Next** to override common notifications configuration, or press **Finish** to execute the task. When **Finish** is pressed the wizard is closed and the remote action is initiated. As soon as it completes the results become available in the **Application Log** view.

## Scheduling Tasks

Each of the available remote actions can be executed immediately or scheduled for execution. To schedule a new remote task go to the **Calendar** view, right click the **Scheduling** area and select **New Task...** from the pop-up menu. The wizard will appear on the screen. Pic 1 Select task type from **Type** drop-down list, specify the task name, select start time for the task or configure task recurrence, using **Recurrence...** button. Optionally you can add a comment and description if required.

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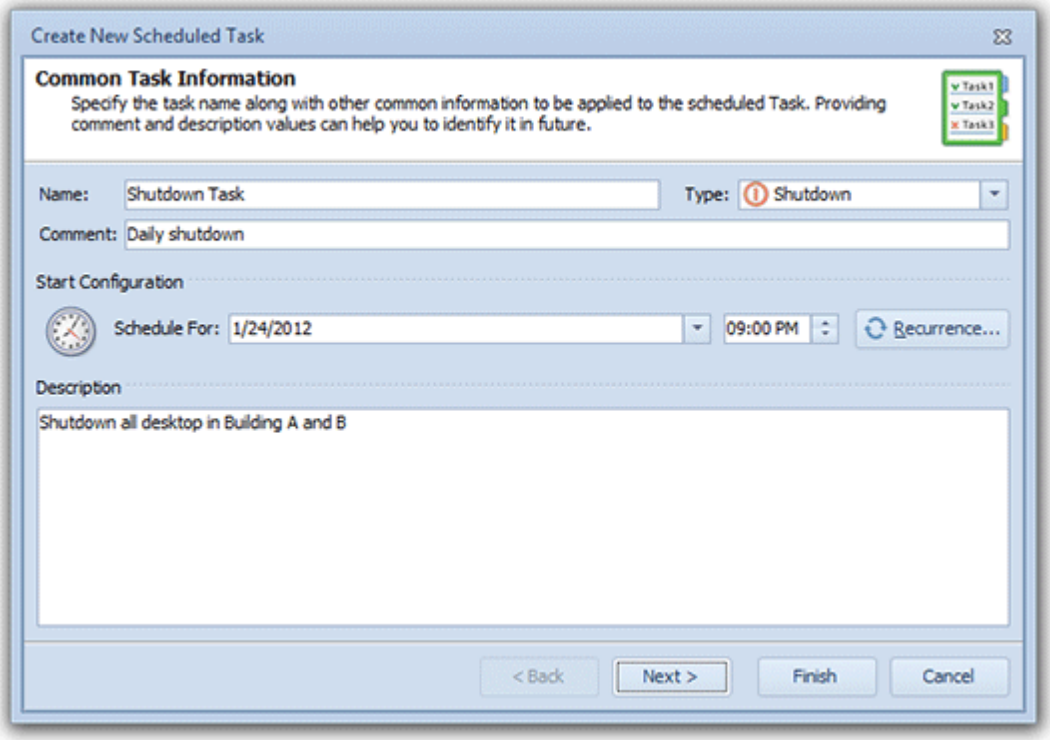
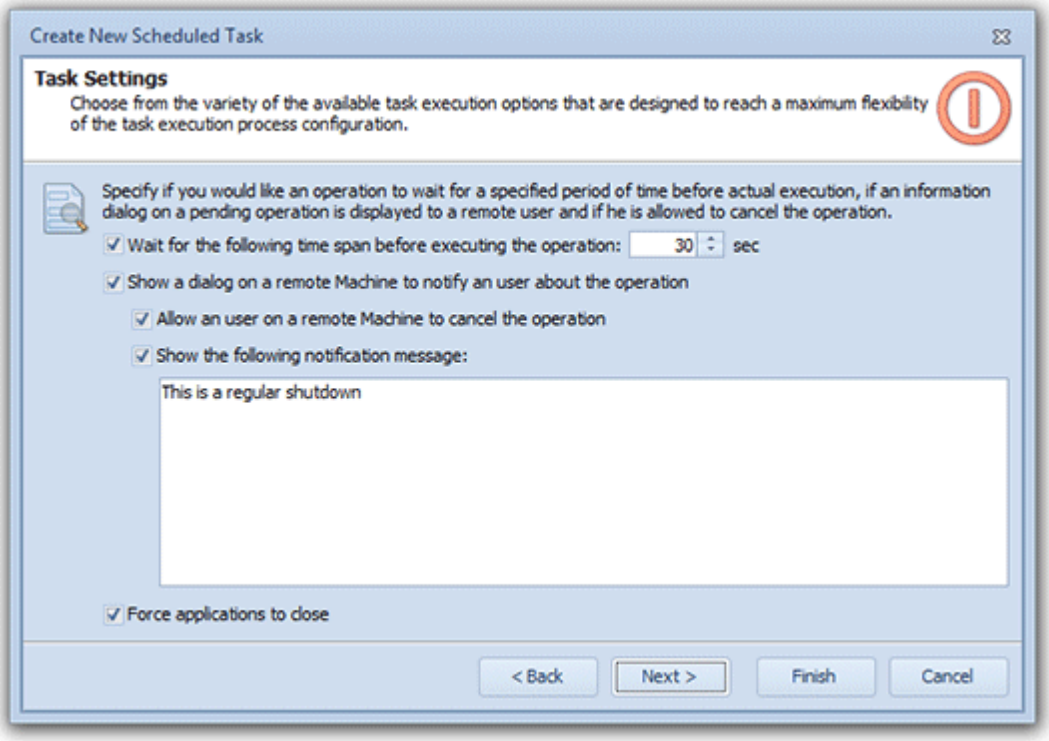

Create New Scheduled Task
Common Task Information
Specify the task name along with other common information to be applied to the scheduled Task. Providing comment and description values can help you to identify it in future.
Name: Shutdown Task
Type: Shutdown
Comment: Daily shutdown
Start Configuration
Schedule For: 1/24/2012
09:00 PM
Recurrence...
Description
Shutdown all desktop in Building A and B
< Back
Next >
Finish
Cancel

Pic 1. Specifying common task information

For all task types, except **Wake On LAN**, and **Unlock Devices**, the next page of the wizard allows you to configure the type specific options for the task, e. g. if the action chosen is Shutdown, on the next page you are proposed to specify action timeout, if the notification message is shown during the timeout, notification message itself, if the currently logged on user on the remote Machine can abort the shut down process and if the applications should be forced to close. Pic 2


Create New Scheduled Task
Task Settings
Choose from the variety of the available task execution options that are designed to reach a maximum flexibility of the task execution process configuration.
Specify if you would like an operation to wait for a specified period of time before actual execution, if an information dialog on a pending operation is displayed to a remote user and if he is allowed to cancel the operation.
Wait for the following time span before executing the operation: 30 sec
Show a dialog on a remote Machine to notify an user about the operation
Allow an user on a remote Machine to cancel the operation
Show the following notification message:
This is a regular shutdown
Force applications to close
< Back
Next >
Finish
Cancel

Pic 2. Specifying Shutdown action configuration

For the **Wake On LAN** task the first page provides you with a brief information on the requirements that should be met for the Wake-on-LAN to succeed.

On the next step of the wizard you can choose the Machines the task should work with. Pic 3 You can choose between the Machines available in the **Network Browser** and **Custom Grouping**.

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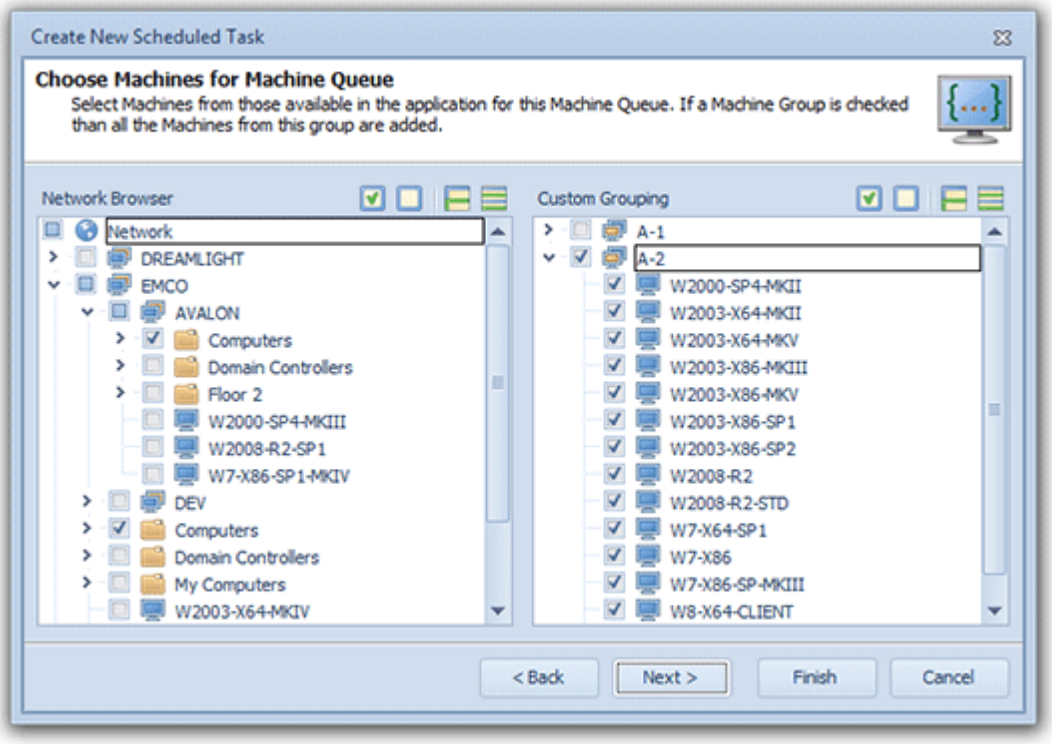
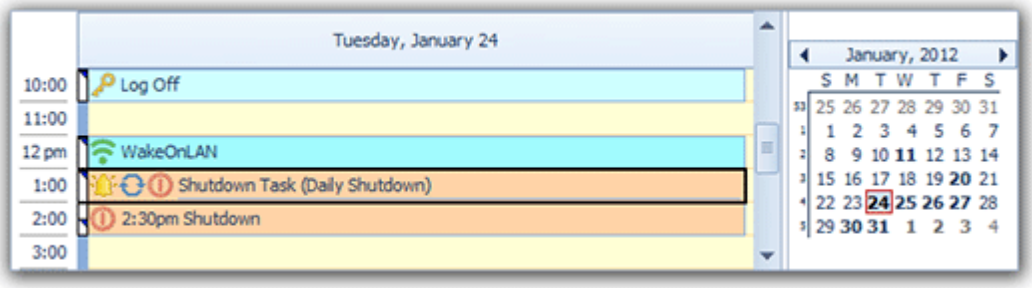



**Pic 3. Choosing the scope of operable Machines**

After the Machines are chosen you can press **Next** to override common notifications configuration, or press **Finish** to schedule the task. When **Finish** the new task is scheduled regarding the configuration specified during scheduling process. Pic 4




**Pic 4. The new task Scheduled**

A scheduled task is executed automatically when its start time comes. Remote Shutdown stores the results for all runs of such a task, and you can review all of them in the **Task Execution Results** view.

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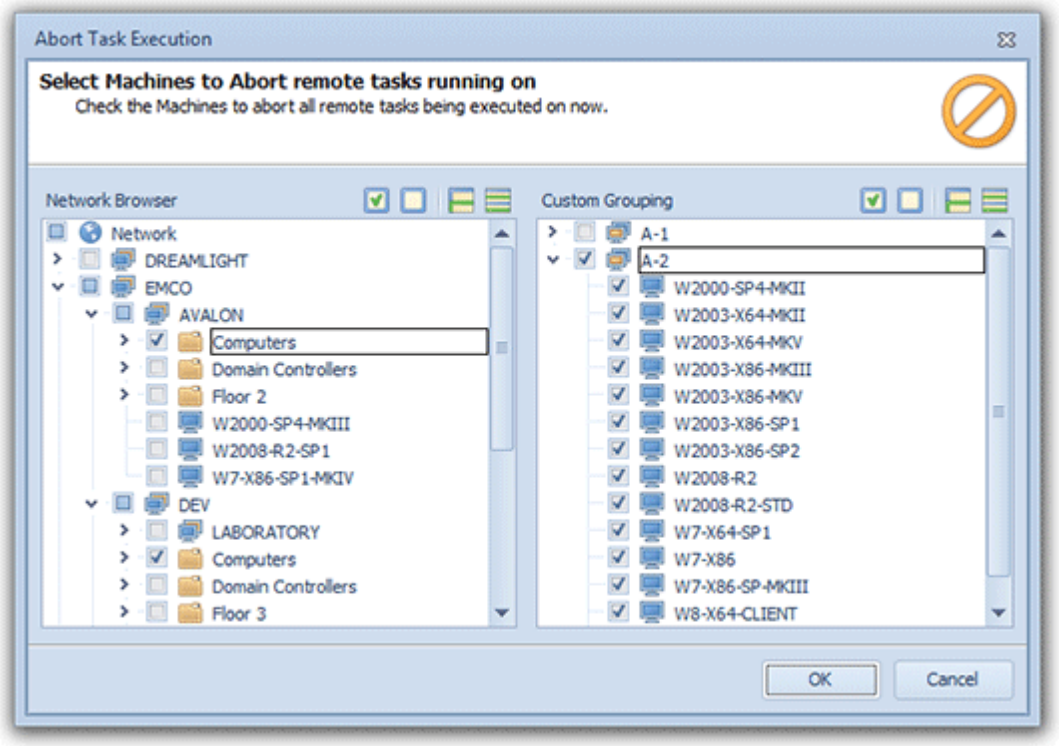
## Aborting Tasks Execution

The Abort action allows you to cancel all remote actions initiated by Remote Shutdown and being executed now on the set of remote Machines. To abort such tasks select these Machines in the **Network Browser** or **Custom Grouping** pane and press **Abort** button available from the **Remote Actions** Ribbon group of the **Shutdown** Ribbon page. The **Abort Task Execution** Pic 1 dialog will appear on the screen so you can validate the selection and change the operable Machines scope, if required. Press **OK** button to proceed.




**Pic 1. Checking the Machines to participate in Abort operation**

Another useful feature of Remote Shutdown is that you can abort the task directly from the **Scheduling** area. In such a case the remote operation will be aborted on the Machines available from the task's **Machine Queue**. To perform such kind of an Abort right click the task and choose **Abort** from the pop-up menu.

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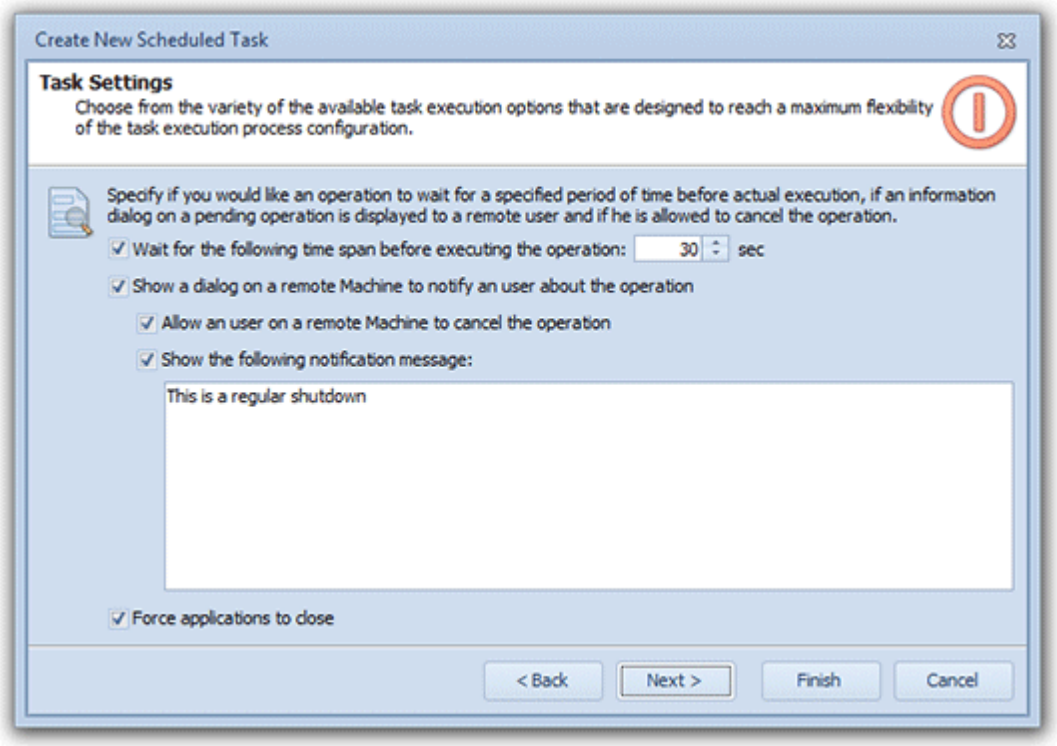
## Task Execution Options

Most of the task coming with Remote Shutdown has specific options that are configured individually for each task. There are only two operations that have no such capabilities – those are **Wake On LAN** and **Unlock Devices**. Let us take a look at these options using the Shutdown task options as a template. Pic 1


Create New Scheduled Task
Task Settings
Choose from the variety of the available task execution options that are designed to reach a maximum flexibility of the task execution process configuration.
Specify if you would like an operation to wait for a specified period of time before actual execution, if an information dialog on a pending operation is displayed to a remote user and if he is allowed to cancel the operation.
Wait for the following time span before executing the operation:
30
sec
Show a dialog on a remote Machine to notify an user about the operation
Allow an user on a remote Machine to cancel the operation
Show the following notification message:
This is a regular shutdown
Force applications to close
< Back
Next >
Finish
Cancel

Pic 1. Shutdown options

**Wait for the following time span before executing the operation** option allows to specify a timeout for the action itself. It means that the action will actually be initiated on a remote Machine after the time span specified is passed after the task was executed on the local machine. You can specify if the dialog should be shown on the remote Machine during the timeout period, so that the currently logged on user can save his data, using the **Show the dialog on a remote Machine to notify an user about the operation**. Pic 2 It is also possible to allow the user currently logged on the remote Machine to cancel the operation by enabling **Allow an user on a remote Machine to cancel the operation** option – in such a case **Cancel** button will be a part of the notification dialog. Pic 2 This option is useful much when the shut down being performed is on a regular basis, e. g. the end of the working day comes, but the user wants to stay at work longer.

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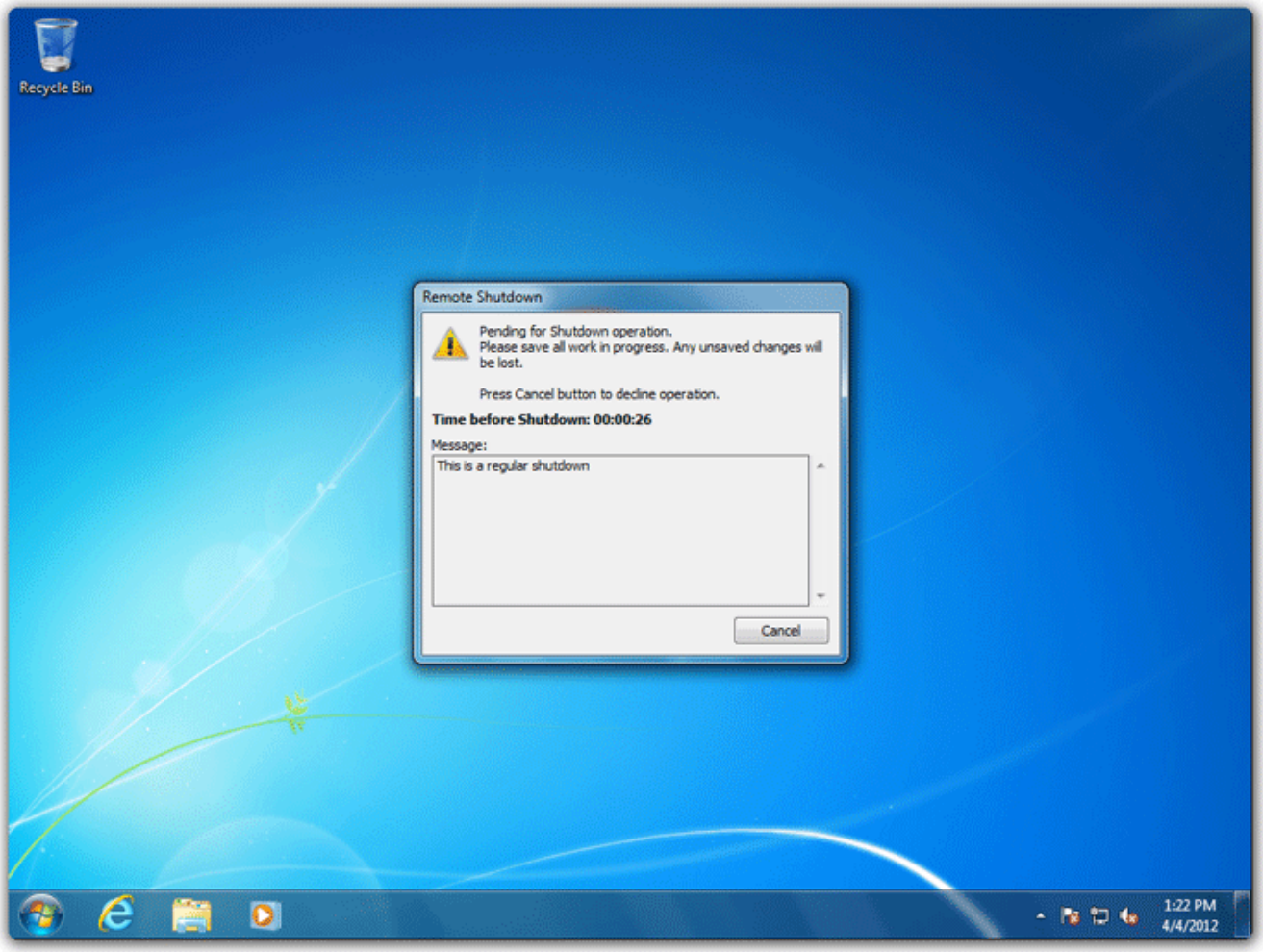


Pic 2. Notification screen on the remote desktop

The custom text for the notification message Pic 2 can be specified by checking **Show the following notification message** option and providing the text itself.

**Force application to close** option should be used if the shut down must proceed in any case even if the applications cannot be closed by some reason, e. g. prompting for data saving. Use this option carefully cause it may lead to a possible business data loss on the remote Machines.

## Notification Settings

Another useful feature of Remote Shutdown is that it can show balloon tips on task execution and send e-mail notifications, containing tasks execution results to any recipients. These messages are sent just after task execution regarding the mailbox configuration and specified settings. You are allowed to define global settings for e-mail notifications and override them for each task.

### Specifying Common Notifications Settings

The common notifications settings are specified on the **Notifications** preference page. Pic 1 To access the **Notifications** preference page press **Preferences** button from the **Application Menu** and select **Notifications** link in the navigation bar on the left of the dialog opened.

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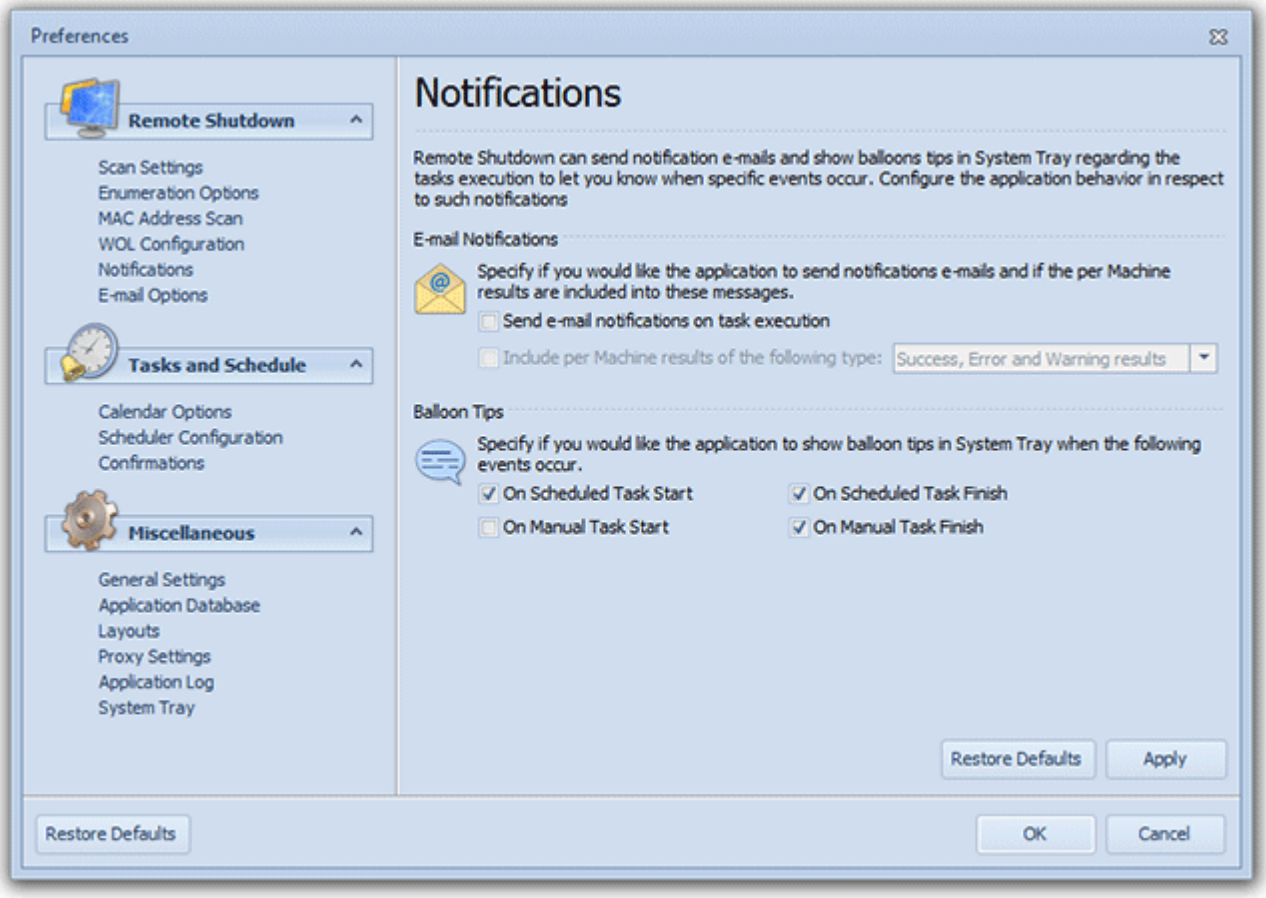
Preferences
Remote Shutdown
Scan Settings
Enumeration Options
MAC Address Scan
WOL Configuration
Notifications
E-mail Options
Tasks and Schedule
Calendar Options
Scheduler Configuration
Confirmations
Miscellaneous
General Settings
Application Database
Layouts
Proxy Settings
Application Log
System Tray
Notifications
Remote Shutdown can send notification e-mails and show balloons tips in System Tray regarding the tasks execution to let you know when specific events occur. Configure the application behavior in respect to such notifications
E-mail Notifications
Specify if you would like the application to send notifications e-mails and if the per Machine results are included into these messages.
Send e-mail notifications on task execution
Include per Machine results of the following type:
Success, Error and Warning results
Balloon Tips
Specify if you would like the application to show balloon tips in System Tray when the following events occur.
On Scheduled Task Start
On Scheduled Task Finish
On Manual Task Start
On Manual Task Finish
Restore Defaults
Apply
Restore Defaults
OK
Cancel

**Pic 1. Configuring common notifications settings**

You can specify if you would like a balloon to be displayed, if you would like to receive notification messages sent by Remote Shutdown by e-mail and if the per Machine results are included into these messages.

## Overriding Common Configuration for Specific Tasks

With Remote Shutdown you can define if you would like to receive the notification e-mail messages not only for all tasks, but for each specific task. Per task configuration is accessed from the wizard during task preparation process or while editing the task on the **E-mail Notifications** page. Pic 2

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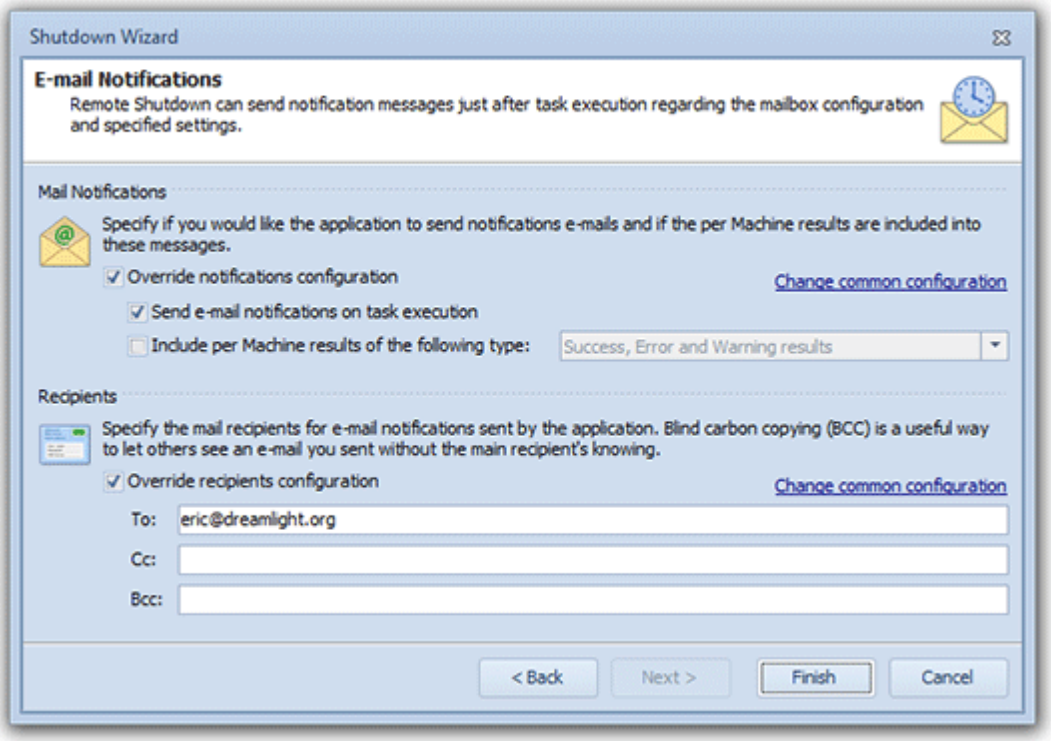
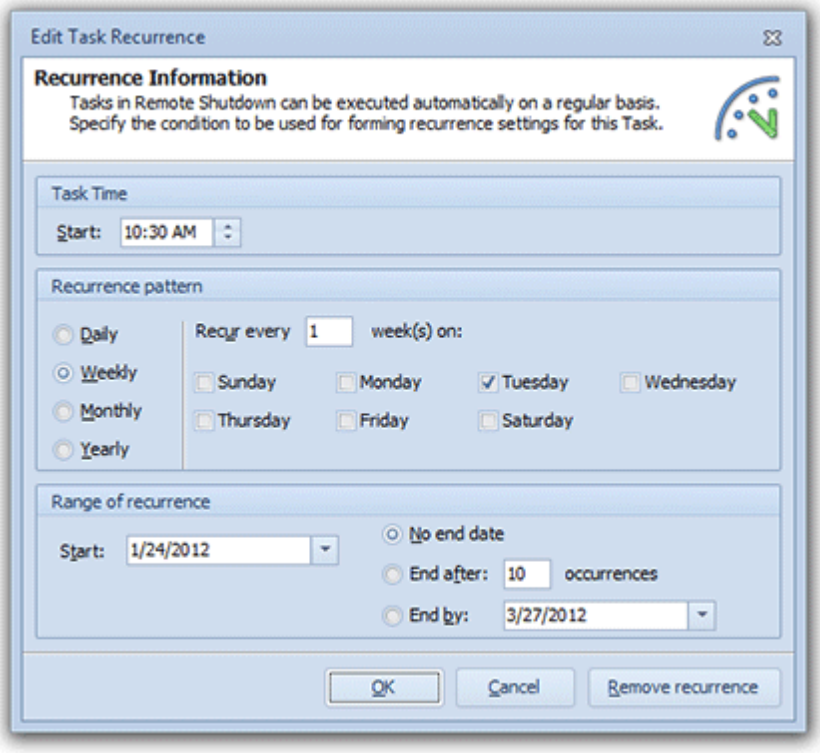

Shutdown Wizard
E-mail Notifications
Remote Shutdown can send notification messages just after task execution regarding the mailbox configuration and specified settings.
Mail Notifications
Specify if you would like the application to send notifications e-mails and if the per Machine results are included into these messages.
Override notifications configuration
Change common configuration
Send e-mail notifications on task execution
Include per Machine results of the following type:
Success, Error and Warning results
Recipients
Specify the mail recipients for e-mail notifications sent by the application. Blind carbon copying (BCC) is a useful way to let others see an e-mail you sent without the main recipient's knowing.
Override recipients configuration
Change common configuration
To:
eric@dreamlight.org
Cc:
Bcc:
< Back
Next >
Finish
Cancel

**Pic 2. Configuring common notifications settings**

You can specify if you would like to receive notification messages for this task sent by Remote Shutdown by e-mail and if the per Machine results are included into these messages.

## Configuring Recurrence

The scheduling engine of Remote Shutdown allows you to schedule recurring tasks quickly and easily. The purpose of this chapter is to introduce you to the range of the recurrence types to be used and describe each of them. The recurrence options are available from the **Edit Task Recurrence** Pic 1 dialog while the task is being scheduled.




**Pic 1. The recurrence types in the Edit Task Recurrence dialog**

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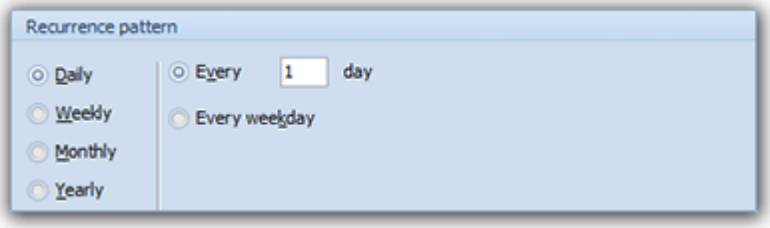
There are four recurrence types available: Daily, Weekly, Monthly and Yearly. Let us take a closer look on each one of them.

## Daily Recurrence Type

The Daily recurrence type should be used if the recurrence condition is based on the number of days between the task execution instances. You can choose to execute the task every N days, where N is the number of days constituting the task execution interval, or every weekday.

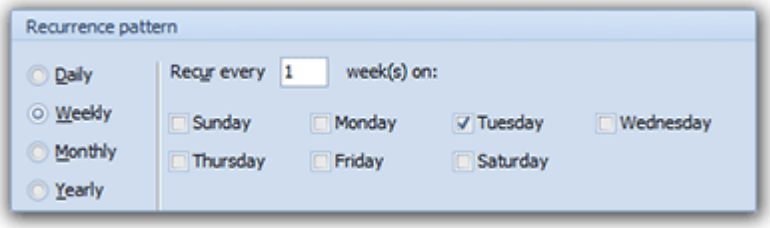
Example




## Weekly Recurrence Type

The Weekly recurrence type should be used if the recurrence condition is based on a particular day of the week and the interval in weeks. You can choose to execute the task, for example, on Mondays and Wednesdays every second week.

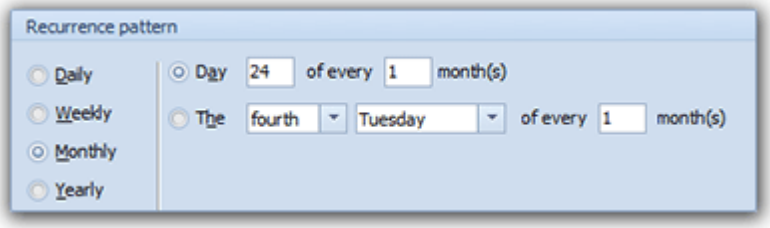
Example




## Monthly Recurrence Type

The Monthly recurrence type should be used if the recurrence condition is based on a particular day of the month and the interval in months. You can choose to execute the task, for example, every second Friday of every month or every sixteenth day of every third month, etc.

Example




## Yearly Recurrence Type

The Yearly recurrence type should be used if the recurrence condition is based on a yearly range. You can choose to execute the task, for example, every November the sixteenth, every third Wednesday in July, etc.

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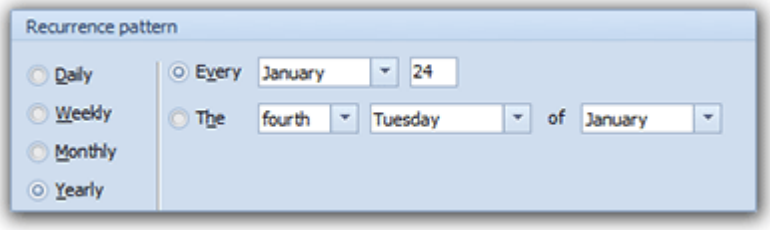
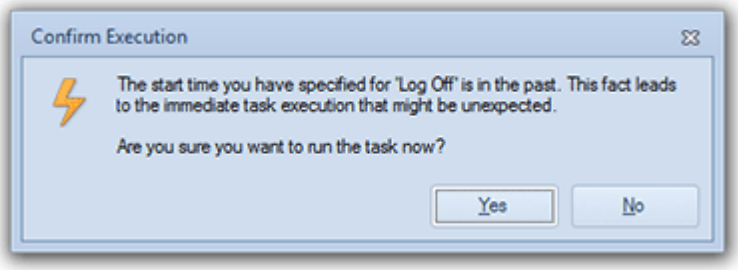
Example




## Task Execution Confirmations

There are two types of tasks that require confirmation before execution. Those are the tasks created in the past and those moved to the past - the execution of such tasks should be confirmed because it might be unexpected. For both these cases the **Confirm Execution** dialog is displayed.


Confirm Execution
The start time you have specified for 'Log Off' is in the past. This fact leads to the immediate task execution that might be unexpected.
Are you sure you want to run the task now?
Yes
No

**Pic 1. The Confirm Execution dialog**

Within the **Confirm Execution** dialog, you can choose if you would like the task that was created in the past or moved to the past to run immediately. If you do not want to make a decision each time such tasks appear, you can configure this behavior on the **Confirmations** preference page.

## Task Execution Results

The **Task Execution Results** view Pic 1 shows the execution results for the tasks available in the **Calendar** view. You can view either the last run results only or all results. Use the **Show Last Results** or **Show All Results** buttons, respectively, available from the toolbar over the **Task Execution Results** view to switch between the levels of detail.

> Linking the **Task Execution Results** view with the **Calendar** view makes the results displayed in the **Task Execution Results** reflect the results of the task selected in the **Calendar** view. If the **Task Execution Results** view is not linked to the **Calendar** view, to review the results for the task you are interested in, you should right-click it in the **Calendar** view and select the **Show Results** menu item from the task's pop-up menu.

If any problems have been detected during the task execution, troubleshooting advice is added to the result messages displayed in the **Task Execution Results** view to help you solve those problems.

### Task Execution Results view representation

Within the **Task Execution Results** view, each row contains the result for a remote Machine: such information consists of the event type represented by an icon, the Machine name, the Group name, the completion date and the event description itself. The description for any event is by default wrapped, so that you can easily read it. If you would like to have more events visible at the same time, you can configure the **Task Execution Results** view to display only one line per event by disabling the **Wrap Text option** from the **Configuration** menu, after which a detailed description will only be shown in the event details pane.

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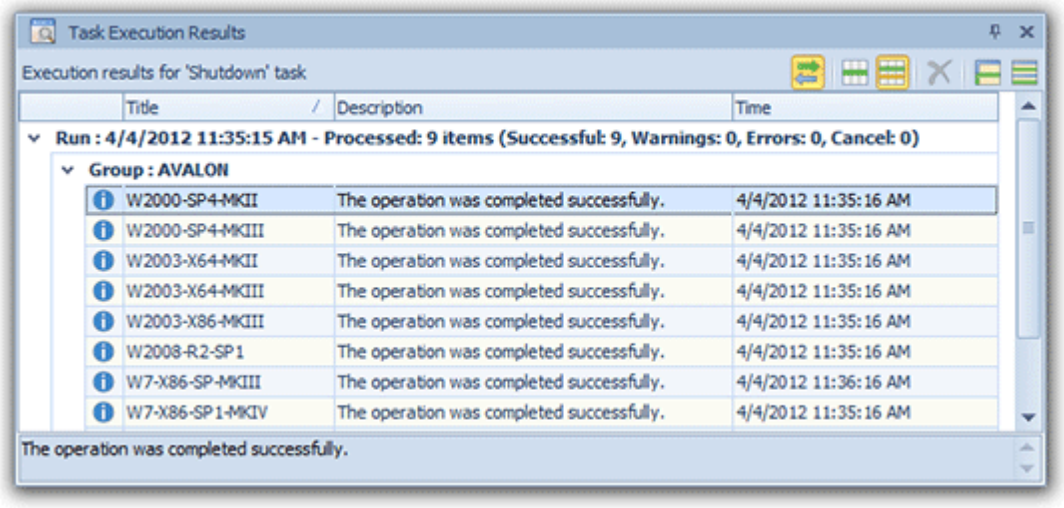
Task Execution Results
Execution results for 'Shutdown' task
Title
Description
Time
Run : 4/4/2012 11:35:15 AM - Processed: 9 items (Successful: 9, Warnings: 0, Errors: 0, Cancel: 0)
Group : AVALON
W2000-SP4-MKII The operation was completed successfully. 4/4/2012 11:35:16 AM
W2000-SP4-MKIII The operation was completed successfully. 4/4/2012 11:35:16 AM
W2003-X64-MKII The operation was completed successfully. 4/4/2012 11:35:16 AM
W2003-X64-MKIII The operation was completed successfully. 4/4/2012 11:35:16 AM
W2003-X86-MKIII The operation was completed successfully. 4/4/2012 11:35:16 AM
W2008-R2-SP1 The operation was completed successfully. 4/4/2012 11:35:16 AM
W7-X86-SP-MKIII The operation was completed successfully. 4/4/2012 11:36:16 AM
W7-X86-SP1-MKIV The operation was completed successfully. 4/4/2012 11:35:16 AM
The operation was completed successfully.

**Pic 1. The Task Execution Results view**

The icons used to display the event type enable you to understand if the operation has succeeded without actually reading the message. The following icons are used to display the event types:

the blue icon with the 'i' character means that everything is OK;

the brown circle icon with a cross-cut line is used to identify that the task was canceled;

the yellow icon with an exclamation mark is the warning icon. It means that some errors took place, but they are not critical. In such case, it is not guaranteed that the operation has actually succeeded;

the red icon with a white cross is the error icon. It means that the operation has failed to be executed.

The results displayed within this view are grouped by Runs and by Groups the processed Machines are located in.

### Link with Selection

The **Link with Selection** button should be used to turn on and off the option of synchronizing the results displayed in the **Task Execution Results** view with the tasks selected within the **Calendar** view and the changes in the sets of result for those tasks.

### Show Last Results

The **Show Last Results** button switches the **Task Execution Results** view to the mode in which only the last run is displayed.

### Show All Results

The **Show All Results** button switches the **Task Execution Results** view to the mode in which all runs for the specified task are displayed.

### Delete Results

The **Delete Results** button allows you to permanently delete the results for the selected runs.

### Full Expand

The **Full Expand** button should be used to expand all the grouping rows in the **Task Execution Results** table.

### Full Collapse

The **Full Collapse** button should be used to collapse all the grouping rows in the **Task Execution Results** table.

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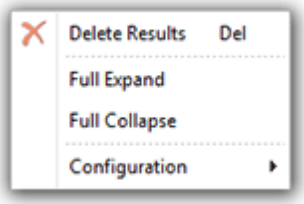
The event details pane is located at the bottom of the **Task Execution Results** view by default. It shows the detailed information pertaining to the result selected in the table so that you can always see the whole even description if it does not fit the width of the table column. If you are not interested in this pane and do not want it to be displayed at all times, you can hide it by disabling the **Show Event Details** Pane option from the view menu.

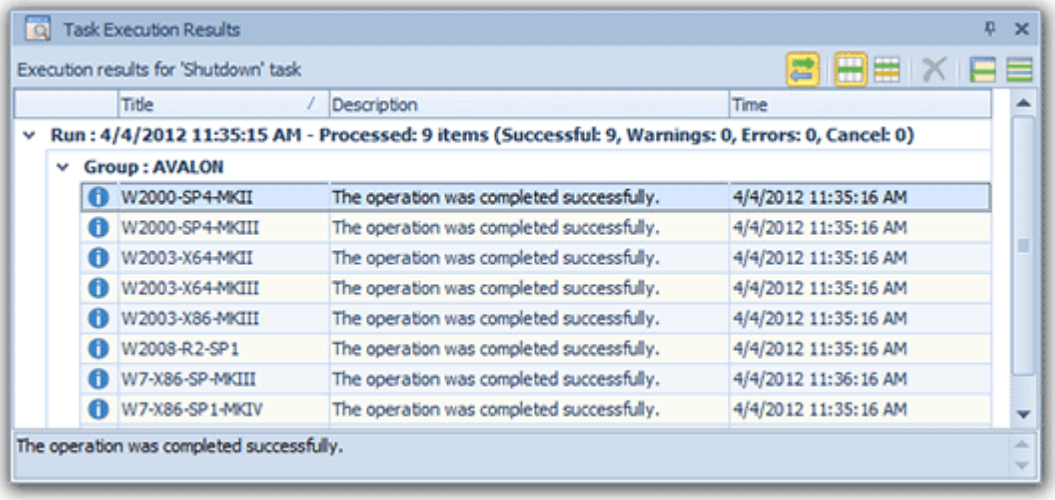
You can delete the results for the selected runs and expand or collapse the grouping rows of the **Task Execution Results** table by using the pop-up menu. Pic 2




**Pic 2. The Task Execution Results view pop-up menu**

## Show Last Results mode

In the **Show Last Results** mode, the **Task Execution Results** view shows the last execution results for the requested tasks Pic 3. You can change the grouping any way you wish to make it convenient for you to review the results.


Task Execution Results
Execution results for 'Shutdown' task
Title
Description
Time
Run : 4/4/2012 11:35:15 AM - Processed: 9 items (Successful: 9, Warnings: 0, Errors: 0, Cancel: 0)
Group : AVALON
W2000-SP4-MKII The operation was completed successfully. 4/4/2012 11:35:16 AM
W2000-SP4-MKIII The operation was completed successfully. 4/4/2012 11:35:16 AM
W2003-X64-MKII The operation was completed successfully. 4/4/2012 11:35:16 AM
W2003-X64-MKIII The operation was completed successfully. 4/4/2012 11:35:16 AM
W2003-X86-MKIII The operation was completed successfully. 4/4/2012 11:35:16 AM
W2008-R2-SP1 The operation was completed successfully. 4/4/2012 11:35:16 AM
W7-X86-SP-MKIII The operation was completed successfully. 4/4/2012 11:36:16 AM
W7-X86-SP1-MKIV The operation was completed successfully. 4/4/2012 11:35:16 AM
The operation was completed successfully.

**Pic 3. The Task Execution Results view in the Show Last Results mode**

## Show All Results mode

In the **Show Last Results** mode, the **Task Execution Results** view shows all execution results for the requested task grouped by the run date Pic 4. You can change the grouping any way you wish to make it convenient for you to review the results.

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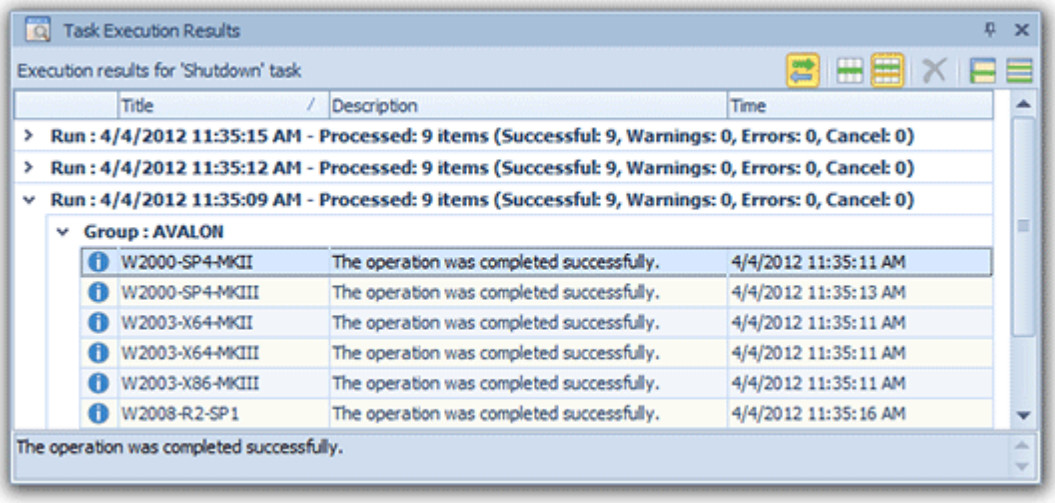

Task Execution Results
Execution results for 'Shutdown' task
Title
Description
Time
Run : 4/4/2012 11:35:15 AM - Processed: 9 items (Successful: 9, Warnings: 0, Errors: 0, Cancel: 0)
Run : 4/4/2012 11:35:12 AM - Processed: 9 items (Successful: 9, Warnings: 0, Errors: 0, Cancel: 0)
Run : 4/4/2012 11:35:09 AM - Processed: 9 items (Successful: 9, Warnings: 0, Errors: 0, Cancel: 0)
Group : AVALON
W2000-SP4-MKII The operation was completed successfully. 4/4/2012 11:35:11 AM
W2000-SP4-MKIII The operation was completed successfully. 4/4/2012 11:35:13 AM
W2003-X64-MKII The operation was completed successfully. 4/4/2012 11:35:11 AM
W2003-X64-MKIII The operation was completed successfully. 4/4/2012 11:35:11 AM
W2003-X86-MKIII The operation was completed successfully. 4/4/2012 11:35:11 AM
W2008-R2-SP1 The operation was completed successfully. 4/4/2012 11:35:16 AM
The operation was completed successfully.

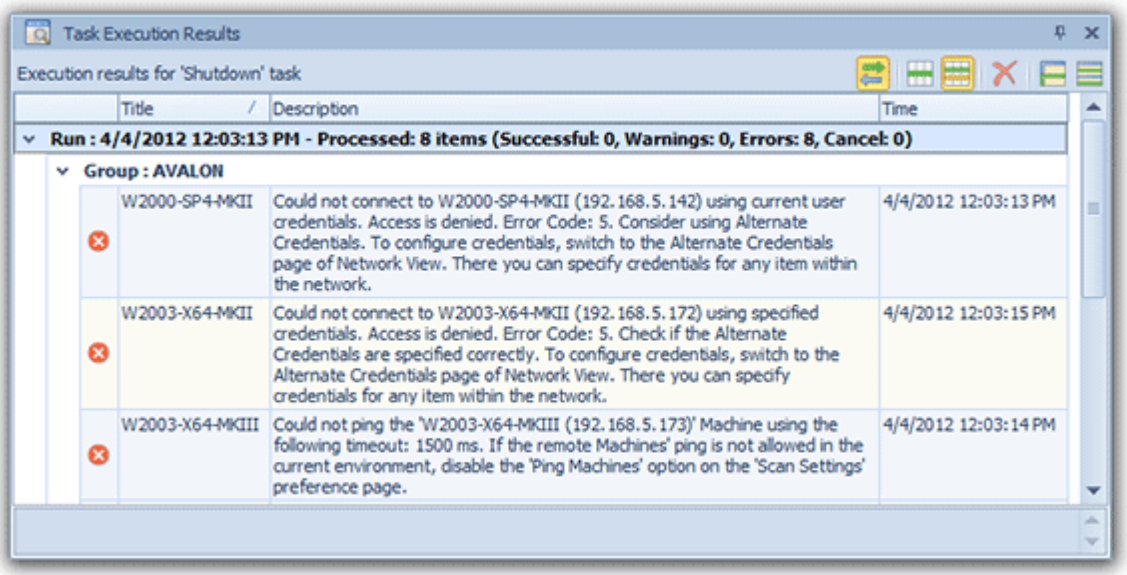
**Pic 4. The Task Execution Results view in the Show All Results mode**

In this mode, you can delete the results for specific runs if you no longer need them by selecting this run's row and using the **Delete Results** menu item.

Now that you are introduced to the representation options of the **Task Execution Results** view, let us take a look at the process of analyzing the results, which may help you complete your business tasks faster and easier.

## Analyzing Task Execution Results

The main purpose of the **Task Execution Results** view is to help you understand if the task execution has succeeded and troubleshoot problems if any have occurred. For example, we have executed a task and received the following set of results. Pic 5


Task Execution Results
Execution results for 'Shutdown' task
Title
Description
Time
Run : 4/4/2012 12:03:13 PM - Processed: 8 items (Successful: 0, Warnings: 0, Errors: 8, Cancel: 0)
Group : AVALON
W2000-SP4-MKII Could not connect to W2000-SP4-MKII (192.168.5.142) using current user credentials. Access is denied. Error Code: 5. Consider using Alternate Credentials. To configure credentials, switch to the Alternate Credentials page of Network View. There you can specify credentials for any item within the network. 4/4/2012 12:03:13 PM
W2003-X64-MKII Could not connect to W2003-X64-MKII (192.168.5.172) using specified credentials. Access is denied. Error Code: 5. Check if the Alternate Credentials are specified correctly. To configure credentials, switch to the Alternate Credentials page of Network View. There you can specify credentials for any item within the network. 4/4/2012 12:03:15 PM
W2003-X64-MKIII Could not ping the 'W2003-X64-MKIII (192.168.5.173)' Machine using the following timeout: 1500 ms. If the remote Machines' ping is not allowed in the current environment, disable the 'Ping Machines' option on the 'Scan Settings' preference page. 4/4/2012 12:03:14 PM

**Pic 5. Execution results sample**

As we can see from the picture above, most of the Machines have been processed successfully, but some of them have not. We need to find out what caused the problem and what should be done to avoid it in future. Also, it may be interesting to go through the warnings to see if anything wrong is going on. So, let us take a closer look at each problem.

For **W2003-X86-MKIII** we've got the following error message: *Could not ping the 'W2003-X86-KMIII.Avalon.Emco.Local (192.168.5.176)' Machine using the following timeout: 1500 ms. Ping reply was not received within the allotted time.* There are a few possible scenarios that may have caused such an error:

- The remote Machine is turned off. Hence that Machine should be turned on to be operated by Remote Shutdown.

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- The remote Machine could not be contacted due to a hardware networking failure. In this case you need to check the network environment.
- The ping functionality is disabled on the remote Machine. You should enable the Ping functionality on the remote Machine. If it is not applicable, go to the **Scan Settings** preference page and disable the **Ping Machines using the following timeout (ms.)** option. Please note that this may significantly decrease the performance.

The **W2000-SP4-MKII** Machine returned another error: *Could not connect to the 'W2000-SP4-MKII.Avalon.Emco.Local (192.168.5.142)' Machine. The connection was performed using the current user credentials.* This means that the currently active user account has no right to access to the remote Machine. To solve the problem, you must provide proper credentials to access this Machine on the **Alternate Credentials** page of the **Network** view.

Finally, the operation over the **W2003-X64-MKII** Machine did not succeed returning the following message: *Could not connect to the 'W2003-X64-MKII.Avalon.Emco.Local (192.168.5.172)' Machine. The connection was performed using the specified credentials: 'admin@Lab.Dev.Emco.local'.* This means that the credentials provided on the **Alternate Credentials** page of the **Network** view do not allow you to perform operations over the remote Machine. You must provide proper credentials to get rid of this error.

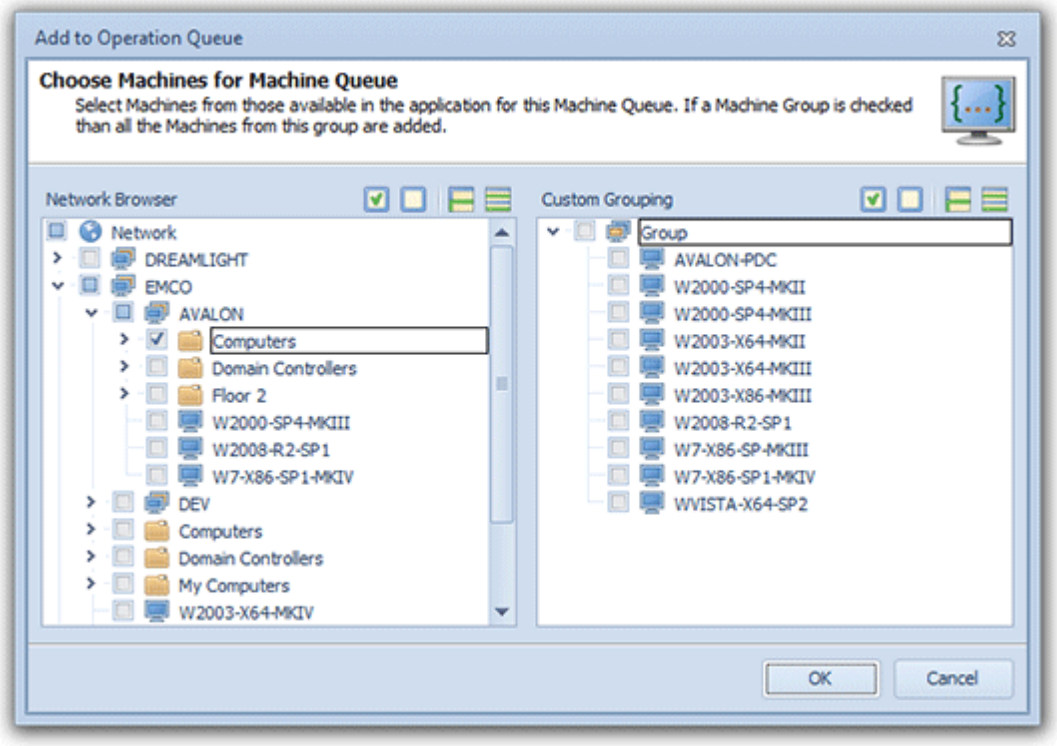
After the results have been reviewed and all problems have been solved, you can run the task again and ensure that the problematic Machines are processed successfully this time.

## Machine Queue Management

This chapter is targeted on managing the **Machine Queue** data – the Machines to take part in the scheduled task. You can add Machines to queue, remove them from queue and clear the queue. These actions are available on the **Machine Queue** pane tool bar and from a pop-up menu.

### Adding Machines to the Machine Queue

To add Machines to the **Machine Queue** click **Add Machine(s)** button in the **Machine Queue** pane tool bar. The dialog Pic 1 is opened, where you can check the Machines to add from the **Network Browser** and **Custom Grouping** contexts. Check the Machines you want to add and press **OK** button to proceed. Alternatively you can drag the Machines from the **Network Browser** or **Custom Grouping** pane and drop them into the **Machine Queue** pane.




**Pic 1. Adding Machines to the Machine Queue**

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### Removing Machines from the Machine Queue

To remove the Machines from the **Machine Queue** select the Machines you want to remove in the **Machine Queue** pane and press **Remove Machine(s)** button. It is possible to select a grouping Domain node to remove all Machines from this Domain.

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# Chapter 8: Network Management

Remote Shutdown interaction with the network is designed in a way that enables a fast and easy search for Machines all over the network and their subsequent processing. Remote Shutdown saves the network structure in its database and shows it in form of a tree. Automatic scan results are displayed within the **Network Browser** pane and can be used to create your own **Custom Grouping** structure. If the current user account does not have sufficient rights to access the remote Machines, the Alternate Credentials concept comes to your help enabling you to provide specific credentials both for domains and individual Machines.

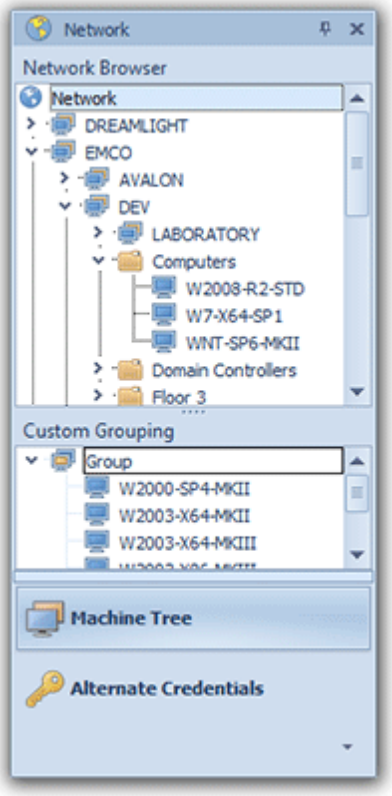
The purpose of this chapter is letting you know how to manage the representation of your network structure in the application and how to provide alternate credentials to access specific Machines.

## What's inside

Network Enumeration
Alternate Credentials
Network Objects Properties
Adding Machines to Custom Grouping

## Machine Tree

**Machine Tree** is located by default on the left of the main application window within the **Network** view under the **Machine Tree** navigation bar page. It consists of two separate expandable parts: the **Network Browser** pane and the **Custom Grouping** pane. Pic 1




**Pic 1. Machine Tree**

The icon next to every item represented in both parts is used to describe of the item's type and state. The state icons are provided to help you understand what is happening in the application at the moment. You can always see if the item is being processed now by some operation or not, and if it can be removed. Below is the list of icons used:

Root of **Network Browser**;

Machine Group (may be both a domain and a workgroup);

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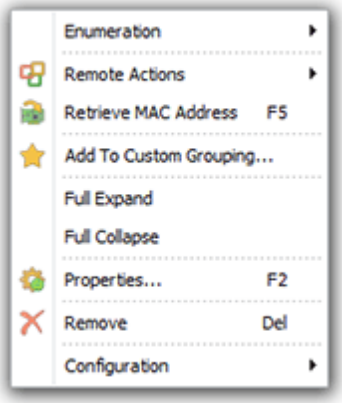
Custom Group;

Active Directory Container (an organization unit or other container in Active Directory);

Machine. A representation of a network Machine.

## Network Browser

The **Network Browser** pane represents the network items found during enumeration or added manually. Machines that are not available during the automated network enumeration process may be removed from this pane.You can use the pop-up menu Pic 2 of **Network Browser** to get a quick access to such functions as network scanning for new Machines, reviewing the object properties, adding Machines to the **Custom Grouping** and others.



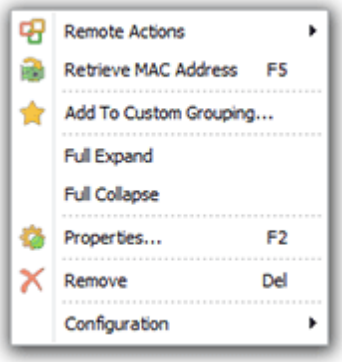

**Pic 2. The pop-up menu of the Network Browser pane**

The displayed pop-up menu is composed depending on the selection in **Network Browser** to always give you the widest scope of actions that can be performed for the selected items.

## Custom Grouping

The **Custom Grouping** pane is used to permanently store information about remote Machines and group the stored Machines in any structure you want. To add Machines to the **Custom Grouping** pane, drag and drop them from the **Network Browser** pane or click on the **Add to Custom Grouping** item available from the **Network** Ribbon group or from the pop-up menu of both the **Network Browser** and **Custom Grouping** pane.

A quick access to the main **Custom Grouping** features - such as adding new Custom Groups, removing the existing ones, changing the object properties and others - is provided via the pop-up menu Pic 3 of **Custom Grouping**.




**Pic 3. The pop-up menu of the Custom Grouping pane**

The displayed pop-up menu is composed depending on the selection in **Custom Grouping** to always provide you with the widest scope of actions available for the selected item.

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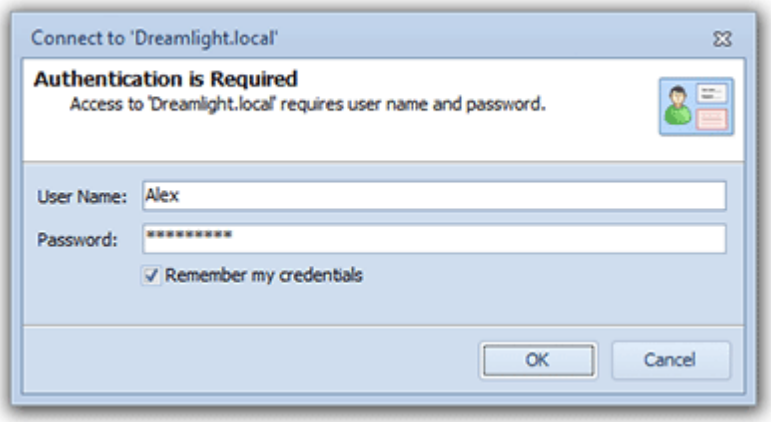
## Network Enumeration

Network enumeration means scanning the network for available Machines for their further processing by Remote Shutdown. Enumeration can be performed using either Active Directory or Computer Browser or both. You can also specify if the Active Directory structure should be observed during enumeration so that the network Machines are grouped in the same way as in the Active Directory database.

The current user credentials, just like the specified alternate credentials, might not give access to the Active Directory data during an automatic Network Enumeration process using Active Directory. In such case, an authentication dialog Pic 1 is displayed to input the credentials for the domain being connected to. The **Remember my credentials** option allows saving the provided credentials as the alternate credentials for this domain. If this option is not enabled, the provided credentials are cached for the current session only.




**Pic 1. Providing credentials to connect to the Active Directory domain**

This chapter contains a detailed description of the Enumeration process and of all the options you can specify for this process.

### What's inside

Network Scan
Adding Machines manually
Enumeration Wizard

## Enumeration Wizard

**Enumeration Wizard** Pic 1 is designed to make the process of building the network structure fast and easy. It allows you to perform automatic network enumeration and add Machines manually via IP Ranges or a custom name pattern.

**Enumeration Wizard**

The **Enumeration Wizard** button from the **Network** Ribbon group should be used to start **Enumeration Wizard** which can help you with adding Machines to **Network Browser** for further processing.

After Remote Shutdown has built the network structure, it can be used to create any specific structure in the **Custom Grouping** context. Then, the Machines from the **Network Browser** and/or **Custom Grouping** contexts can be processed by the application. The **Enumeration Wizard** welcome page displays built-in help information on when this wizard should be used and how it may help you, as well as a warning of possible situations that might be unexpected for you.

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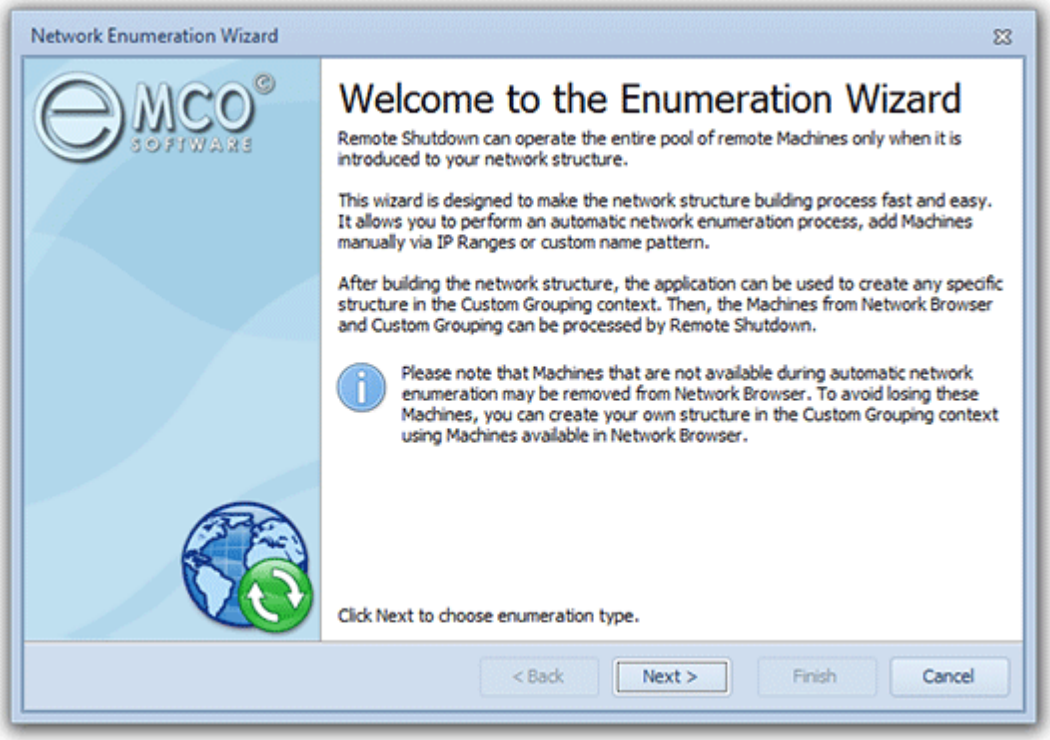
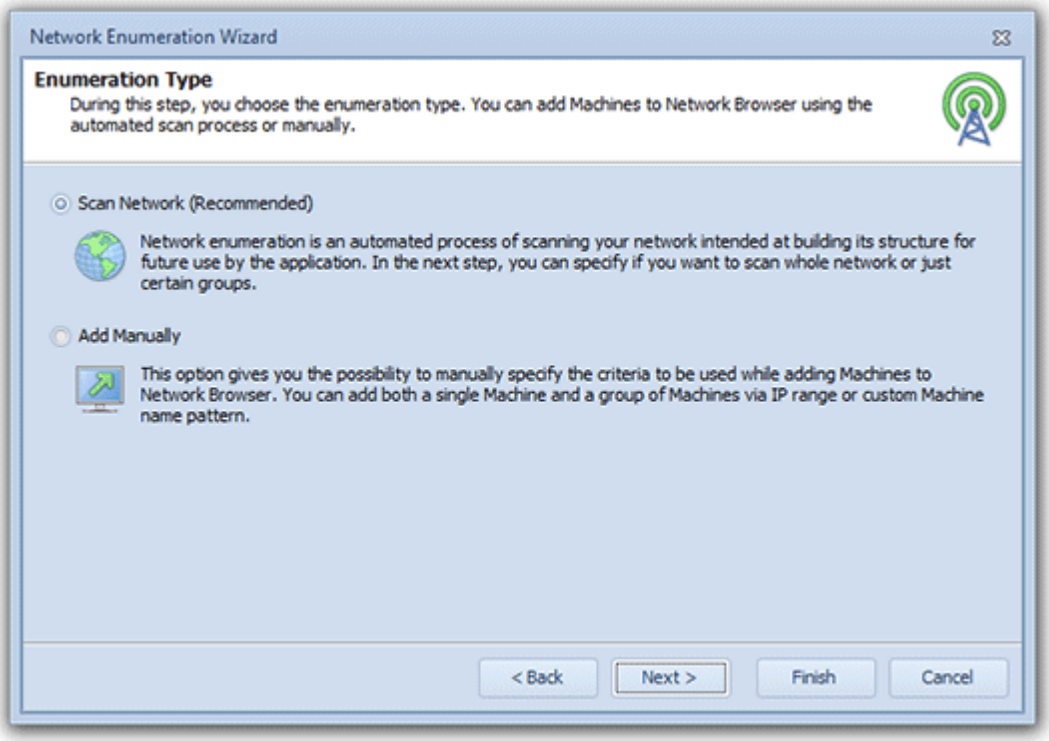

Network Enumeration Wizard
Welcome to the Enumeration Wizard
Remote Shutdown can operate the entire pool of remote Machines only when it is introduced to your network structure.
This wizard is designed to make the network structure building process fast and easy. It allows you to perform an automatic network enumeration process, add Machines manually via IP Ranges or custom name pattern.
After building the network structure, the application can be used to create any specific structure in the Custom Grouping context. Then, the Machines from Network Browser and Custom Grouping can be processed by Remote Shutdown.
Please note that Machines that are not available during automatic network enumeration may be removed from Network Browser. To avoid losing these Machines, you can create your own structure in the Custom Grouping context using Machines available in Network Browser.
Click Next to choose enumeration type.
< Back
Next >
Finish
Cancel

**Pic 1. The Enumeration Wizard welcome page**

During the first step, you are offered to choose the enumeration type to be used. Pic 2 You can choose between automated enumeration and manual specification of the Machines to be added to the **Network Browser** pane.


Network Enumeration Wizard
Enumeration Type
During this step, you choose the enumeration type. You can add Machines to Network Browser using the automated scan process or manually.
Scan Network (Recommended)
Network enumeration is an automated process of scanning your network intended at building its structure for future use by the application. In the next step, you can specify if you want to scan whole network or just certain groups.
Add Manually
This option gives you the possibility to manually specify the criteria to be used while adding Machines to Network Browser. You can add both a single Machine and a group of Machines via IP range or custom Machine name pattern.
< Back
Next >
Finish
Cancel

**Pic 2. Choosing the enumeration type**

If you have chosen the **Scan Network** option, on the next page you are required to specify the scope of operation for the automatic enumeration process. Pic 3 You can scan the entire network or only particular Groups for available Machine. See the Network Scan topic for details. Having selected the appropriate options, press **Finish** to proceed with enumeration.

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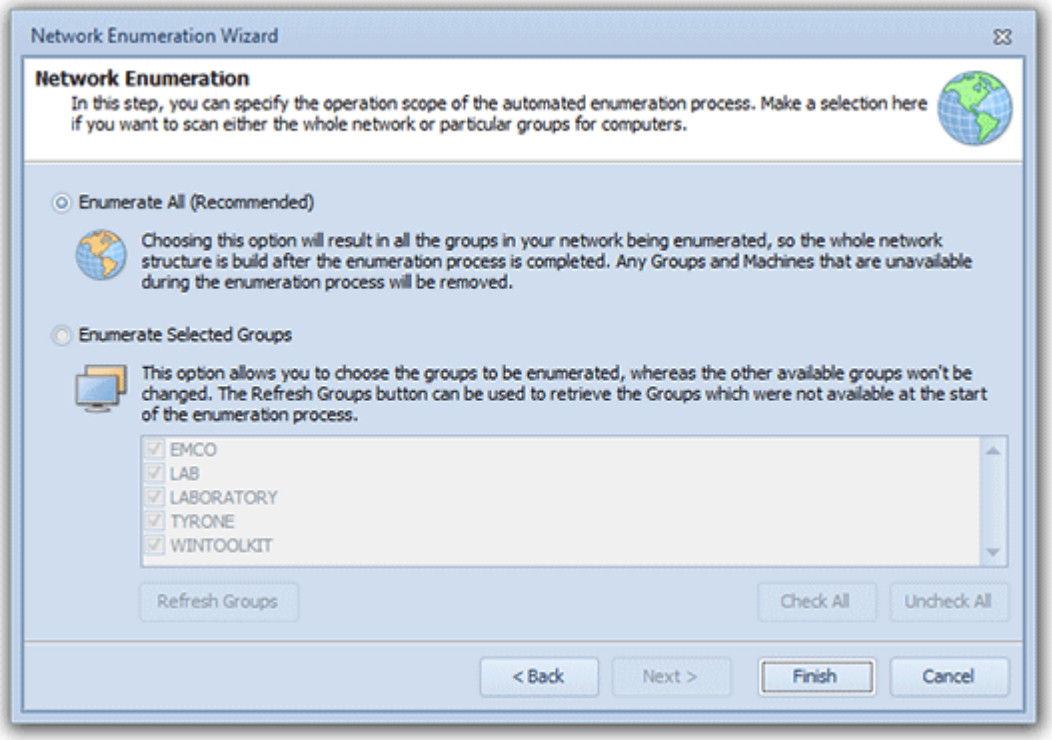
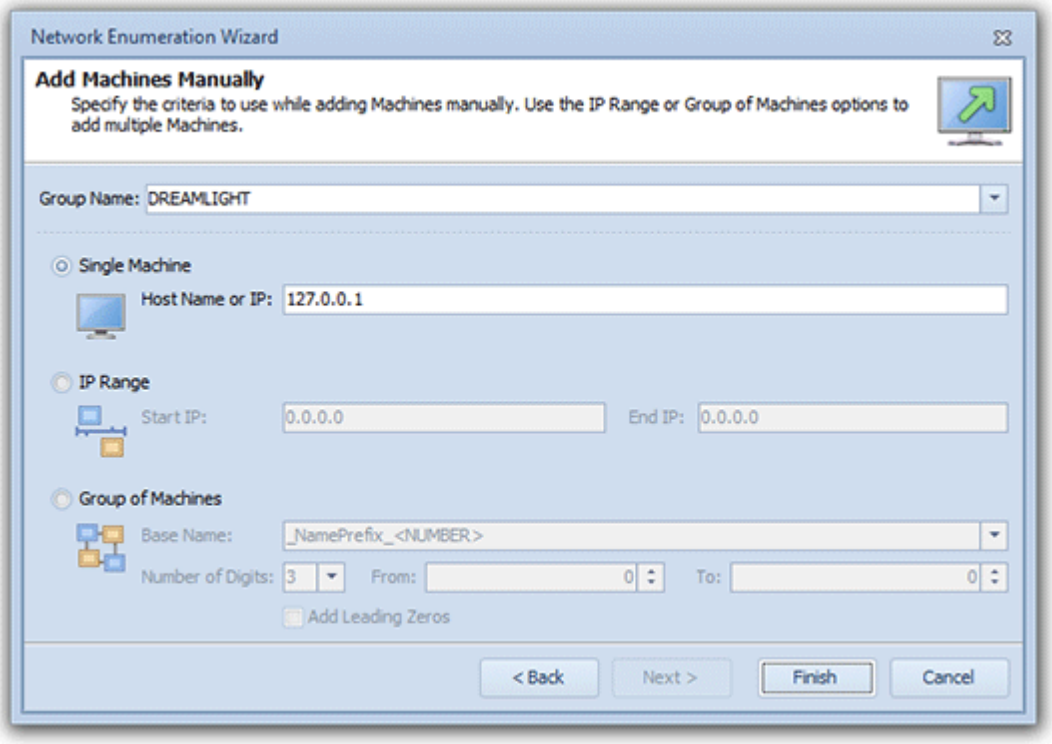

Network Enumeration Wizard
Network Enumeration
In this step, you can specify the operation scope of the automated enumeration process. Make a selection here if you want to scan either the whole network or particular groups for computers.
Enumerate All (Recommended)
Choosing this option will result in all the groups in your network being enumerated, so the whole network structure is build after the enumeration process is completed. Any Groups and Machines that are unavailable during the enumeration process will be removed.
Enumerate Selected Groups
This option allows you to choose the groups to be enumerated, whereas the other available groups won't be changed. The Refresh Groups button can be used to retrieve the Groups which were not available at the start of the enumeration process.
EMCO
LAB
LABORATORY
TYRONE
WINTOOLKIT
Refresh Groups
Check All
Uncheck All
< Back
Next >
Finish
Cancel

**Pic 3. Selecting the enumeration process operable scope**

If the **Add Manually** option is chosen, you are offered to specify the criteria of adding machines manually. Pic 4 See Adding Machines Manually for details. Having selected the addition method and the criteria specification, press **Finish** to proceed.




**Pic 4. Adding machines manually**

After you have passed all the steps of the **Network Enumeration Wizard** and pressed the **Finish** button, the process of adding Machines to the **Network Browser** is initiated. As soon as it is completed, you can see the result within the **Network Browser** pane. Pic 4

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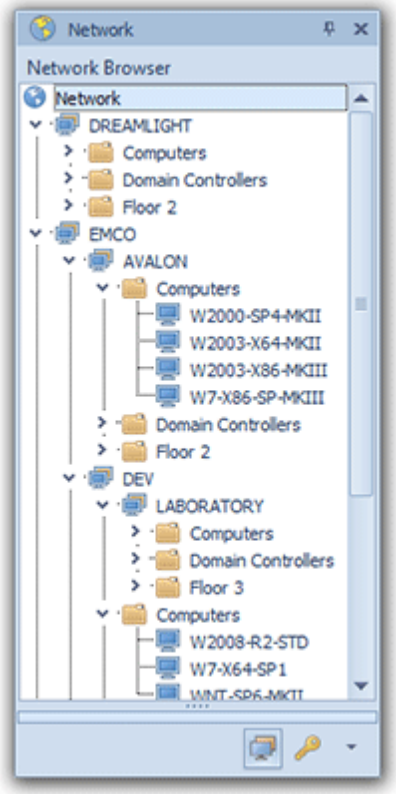


Pic 4. Network enumeration result

The added Machines can be processed in the future with Remote Shutdown. Also, you can use the **Network Browser** data for building the **Custom Grouping** structure.

## Network Scan

The network scan feature is available via both the **Enumeration Wizard**, the shortcut items within the **Network** Ribbon group, and the **Network Browser** pane pop-up menu. Network scan is an automated process of searching your entire network for available remote Machines to be later processed by Remote Shutdown. The scan is performed in accordance with the specified Enumeration Options.

### Scan Network

The **Scan Network** button from the **Network** Ribbon group should be used to scan the entire network for Machines and add them to the **Network Browser** for further processing.

The network scan pane is used to configure the enumeration process to be executed. Here you can specify if you wish to search for Machines available in the entire network or just in particular Groups. Pic 1 If you want to scan only specific Groups, they should be checked within the Groups list. The **Refresh Groups** button should be used to synchronize the Groups list displayed with current network state.

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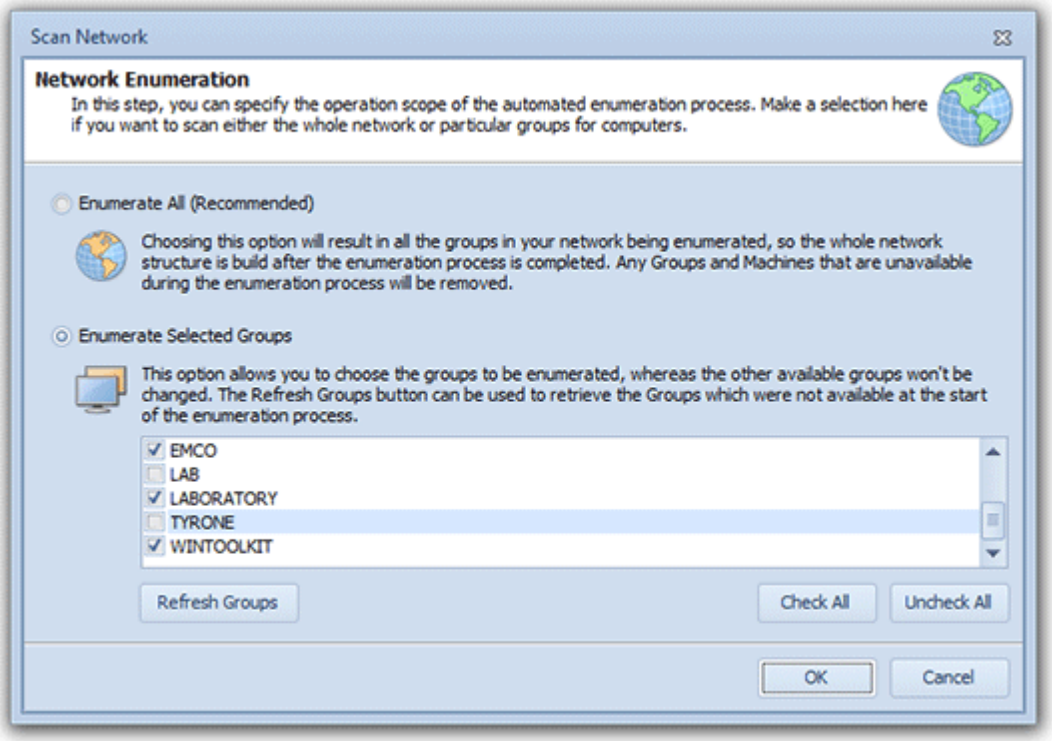
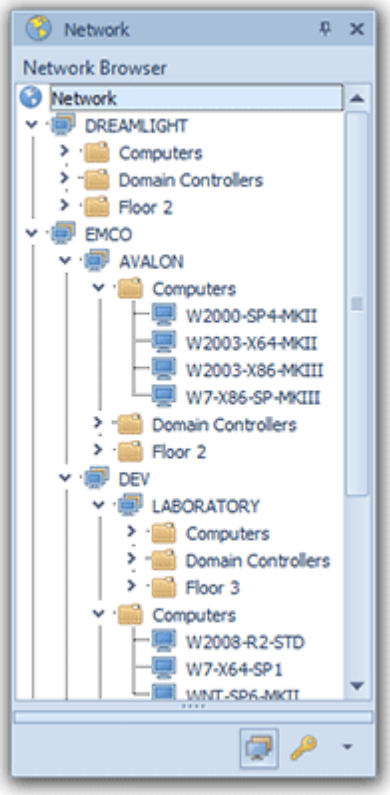

Scan Network
Network Enumeration
In this step, you can specify the operation scope of the automated enumeration process. Make a selection here if you want to scan either the whole network or particular groups for computers.
Enumerate All (Recommended)
Choosing this option will result in all the groups in your network being enumerated, so the whole network structure is build after the enumeration process is completed. Any Groups and Machines that are unavailable during the enumeration process will be removed.
Enumerate Selected Groups
This option allows you to choose the groups to be enumerated, whereas the other available groups won't be changed. The Refresh Groups button can be used to retrieve the Groups which were not available at the start of the enumeration process.
EMCO
LAB
LABORATORY
TYRONE
WINTOOLKIT
Refresh Groups
Check All
Uncheck All
OK
Cancel

**Pic 1. The Network Scan pane**

After pressing the **Scan** button, the enumeration process is initiated as a result of which the **Network Browser** pane is filled with Machines found. Pic 2




**Pic 2. A result of automatic network enumeration**

The Machines found during an automatic network scan and added to **Network Browser** can be used for future processing and building the **Custom Grouping** structure.

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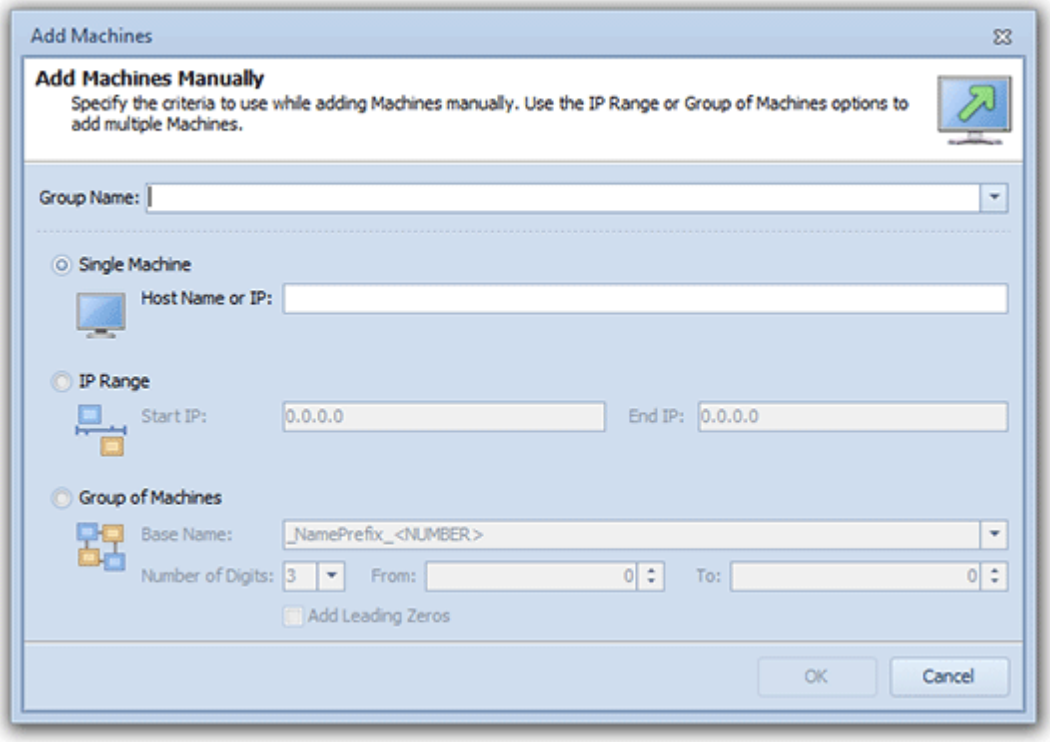
## Adding Machines Manually

Remote Shutdown provides you with an option of adding Machines to the **Network Browser** manually by using the **Add Manually** command or choosing the appropriate enumeration type in the **Enumeration Wizard**. This shortcut action can be found in the **Network** Ribbon group or the **Network Browser** pane pop-up menu.

### Add Manually

The **Add Manually** button from the **Network** Ribbon group should be used to add Machines to **Network Browser** for further processing using the criteria specified manually.

The Add Manually pane is used to specify the criteria of manual addition. Pic 1




**Pic 1. Specifying the criteria of adding Machine(s)**

The first thing to specify is the name of the group where the new Machine(s) will be added to. You can specify it manually or click and select one from those available in the network.

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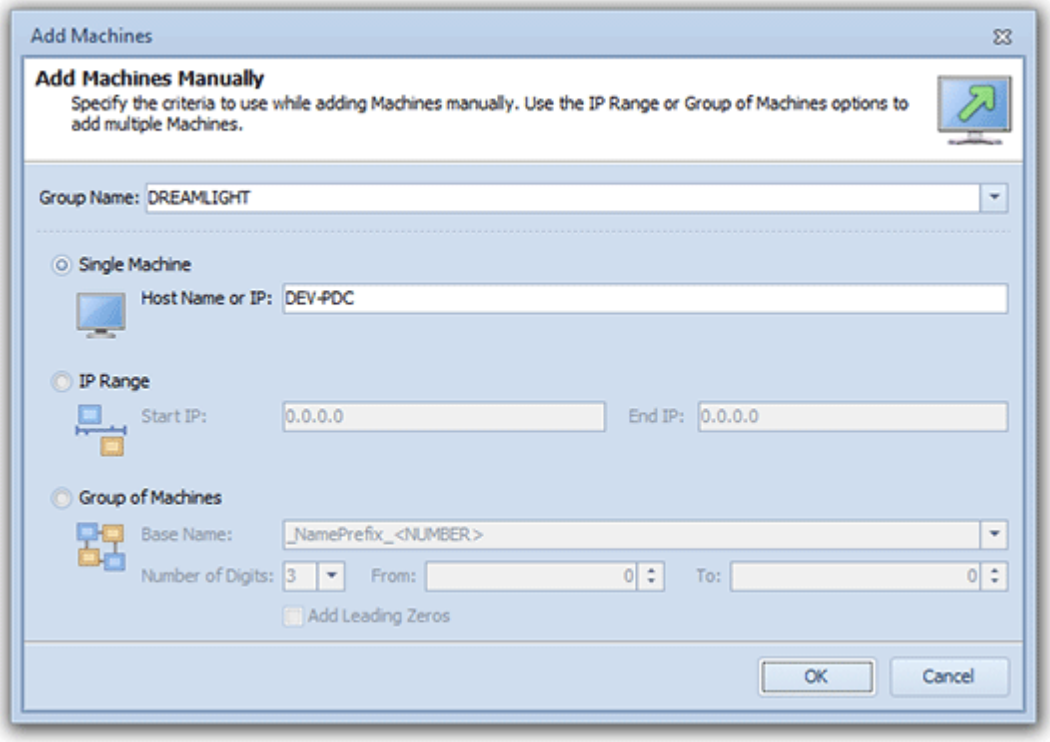
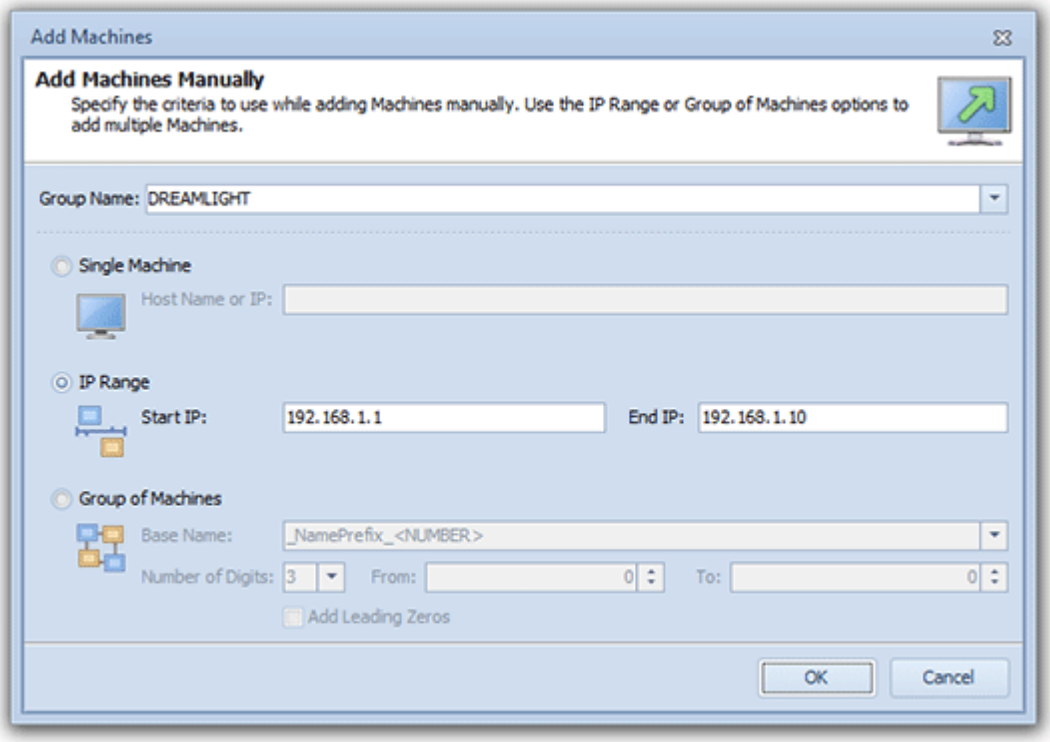
### Single Computer

This option should be used to add a single computer manually. To add it, you should enter its host name or IP. The Machine will be added to the specified Group.




### IP Range

Use this option to add multiple computers by specifying the range of IP addresses. To add Machines via an IP range, you should enter the start and end values. The application will perform the reverse name resolution and add the Machines with the provided addresses.

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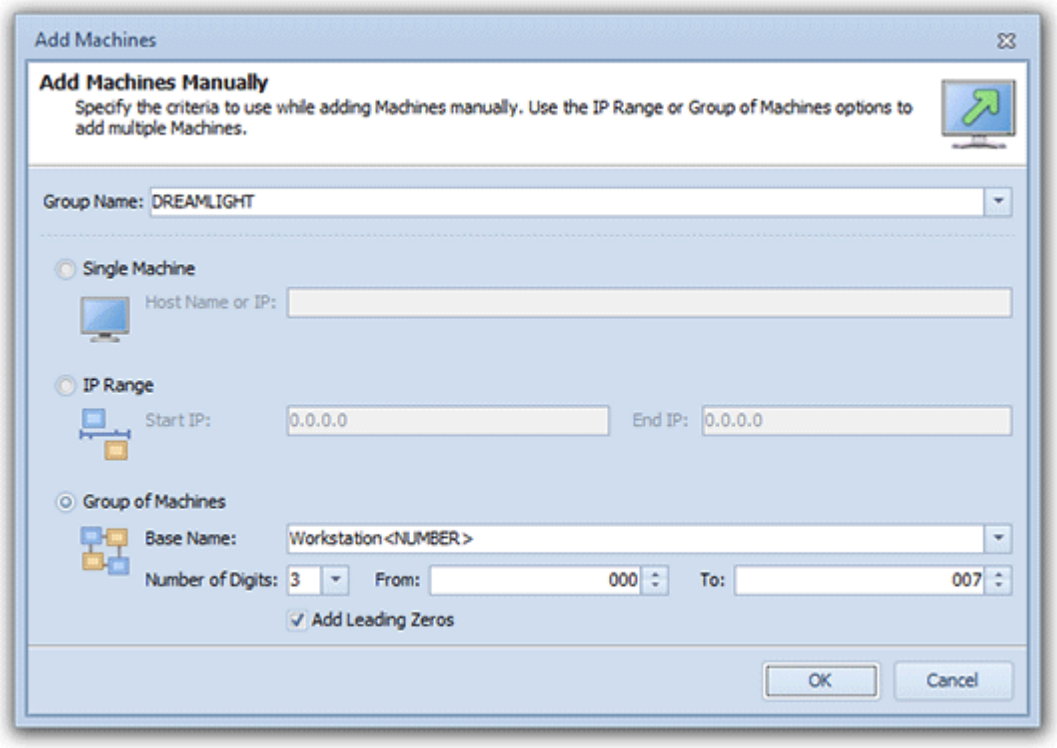
### Group of Computers

This option should be used if you want to add a group of computers with regular names (e.g. Workstation-000, Workstation-001, etc). To use this option, you should choose the pattern from the **Base Name** drop-down and replace either the prefix, or the suffix, or both for whatever value you need. In our example, the base-name pattern will be "Workstation-<NUMBER>". The <NUMBER> will be replaced for the numbers of the range determined by the configuration that you can set below the **Base Name** field.




Having specified the group, you should press **Add** to proceed.

## Network Objects Properties

Every network object contained within the network structure available in the Remote Shutdown has a number of properties.

**Properties**

The **Properties** button from the **Network** Ribbon group allows you to review and change properties of the item selected from the **Network Browser** or the **Custom Grouping** pane depending on which part you currently focus on.

To review and change the object properties, you should select this object in **Network Browser** or **Custom Grouping** and press the **Properties** button from the **Network** Ribbon group on the **Remote Shutdown** page. This action is also available in the pop-up menu of **Network Browser** and **Custom Grouping**.

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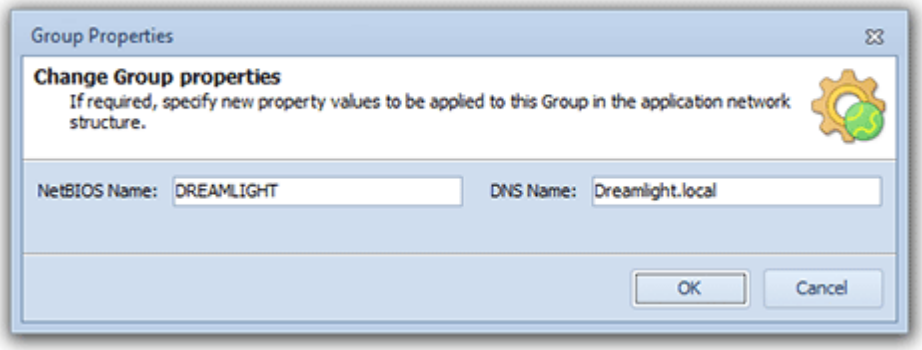


**Pic 1. Network object properties**

For Groups and Machines it is possible to review and change their DNS and NetBIOS names and for Active Directory Containers and Custom Groups it is possible to review and change their names.

## Adding Machines to the Custom Grouping

There are several ways of adding Machines to the **Custom Grouping** context. This can be performed both by using the Drag and Drop technique and in a more flexible way by using the corresponding command.

### Using the Add to Custom Grouping command

This action can be found in the **Network** Ribbon group and in the pop-up menu of both the **Network Browser** and the **Custom Grouping** panes. The **Add to Custom Grouping** dialog is shown. Pic 1 If it is invoked from the pop-up menu, the selection is automatically checked in the tree displayed at the bottom, and if a single group is selected in the **Custom Grouping** pane, the selected group name is used as the group to add to.

**Add to Custom Grouping**

The **Add to Custom Grouping** button from the **Network** Ribbon group should be used to create and maintain the **Custom Grouping** structure.

The **Add to Custom Grouping** dialog pane Pic 1 consists of two parts: the group name part and the checkable part to specify the Machines to be added. You can input a new group name if you want to have it created or select one from the already created group names. Each Machine can be added to more than one custom group.

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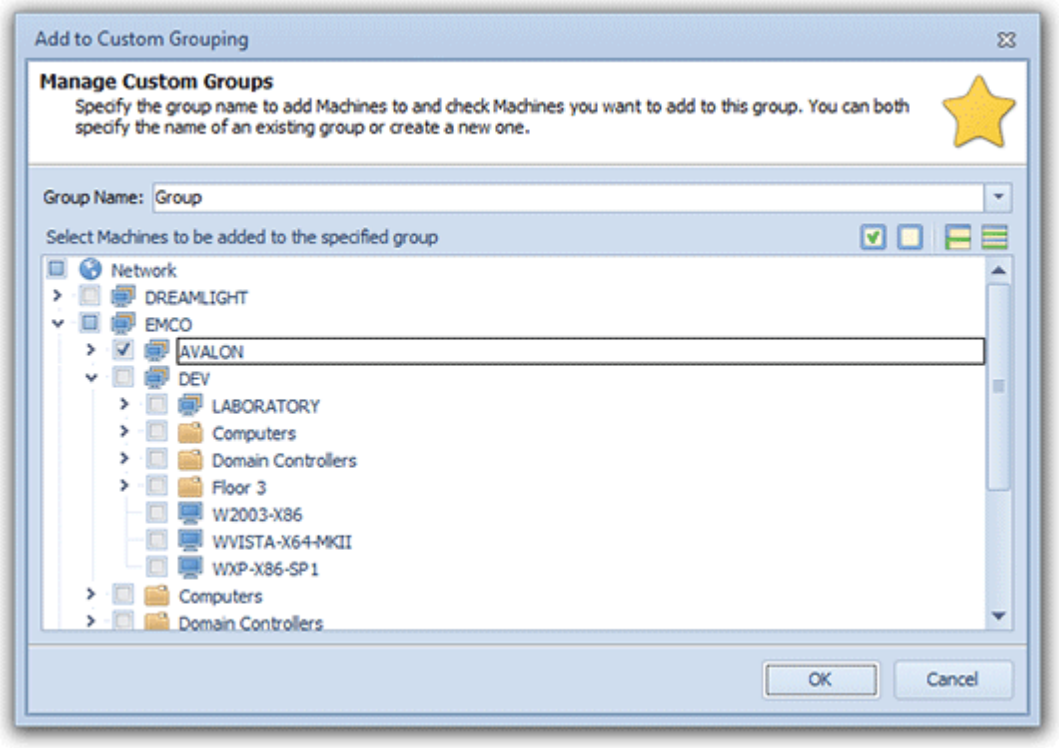


**Pic 1. Adding Machines to Custom Grouping through dialog**

When you have specified the group name and selected the Machines to be added, press **OK** to proceed.

## Alternative ways of adding Machines to Custom Grouping

The simplest way of adding Machines to **Custom Grouping** is dragging them from the **Network Browser** pane. You can encounter several possible scenarios there, all of which are described below.

The first scenario includes dragging a group or several groups of Machines to the empty **Custom Grouping** pane. In such case, groups with the same names are created, and the Machines that are the children of the groups dragged are added to the corresponding groups in **Custom Grouping**. If groups by the same names already exist, the content is merged.

The second scenario is dropping the dragged selection onto some group. After performing such dropping, the Machines available in the selection (both the selected Machines and the Machines representing child nodes of the selection) are merged with Machines from the group you are dropping the selection onto.

The last scenario is dropping the selection that contains individual Machines on an empty space in the **Custom Grouping** pane. In such case, the **Add to Custom Group** dialog is displayed Pic 1 with the dropped items already checked for addition. You are offered to choose a group for the Machines to be added into and modify the scope of Machines to add, if required.

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# Chapter 9: Alternate Credentials

Alternate credentials are the credentials to use for connecting to remote Machines, which are stored between the application sessions. Thus, you can specify the credentials once for Machine, Group or Network, and they will be applied automatically when required.

> Although the alternate credentials are stored in a strongly encrypted state, it is still possible for an intruder to decrypt the credentials.

Credentials set on the *Network* item are used to set the same credentials for all the Machines in the network.

Credentials defined for an individual Group are used when several domains or workgroups with different administrative accounts are present in the network.

The function of specifying credentials for an individual Machine is mainly used to set alternate credentials for separate Machines with unique accounts in the network.

### What's inside

Alternate Credentials Pane
How does it work?
How do I access another domain?

## Alternate Credentials Pane

The credentials to be used to connect to remote Machines for their processing can be defined and reviewed on the **Alternate Credentials** pane. The **Alternate Credentials** pane is located on the left of the main application window within the **Network** view under the **Alternate Credentials** navigation bar page.

### Alternate Credentials Representation

The representation of the **Alternate Credentials** pane Pic 1 is quite similar to that of **Machine Tree**, but it also contains credentials associated with each network item. This tree is built and maintained automatically using the network structure.

The Alternate Credentials used to connect to remote Machines are stored until they are reset, i.e. even if the Machine referenced by the credentials is removed, the credentials will still exist but become inactive. Those credentials items are removed only if they are reset.

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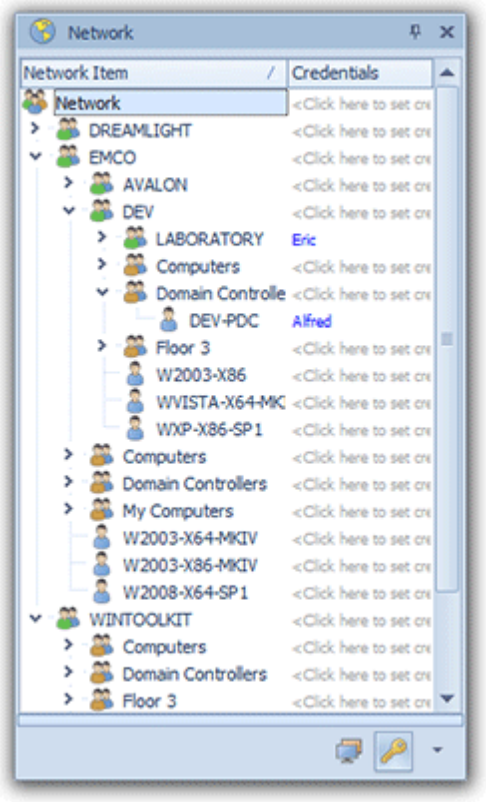


Pic 1. The Alternate Credentials tree

**Item Icon** represents the item type and shows if the credentials defined for this item are currently active or not. The set of icons used to represent all types of the items and their states is described below:

Root of the **Alternate Credentials**;

Machine Group (may be either a domain or a workgroup) credentials;

Active Directory Container (an organization unit or another container in Active Directory) credentials;

Machine credentials;

**Item Name** - the name of the item.

**Credentials Part** – shows the login name to use while connecting to remote Machines or a hint if the credentials are not set. The in-place edit shows the pop-up window to specify the credentials. Pic 2

You can review the How does it work? section to get a closer look at the concept used for alternate credentials.

## Alternate Credentials management actions

Within the **Alternate Credentials** pane, you can define the credentials to be used to access each network resource and reset those credentials when they are no longer needed.

### Set Credentials

The **Set Credentials** button from the **Alternate Credentials** Ribbon group should be used to define the credentials for the item currently selected in the **Alternate Credentials** pane.

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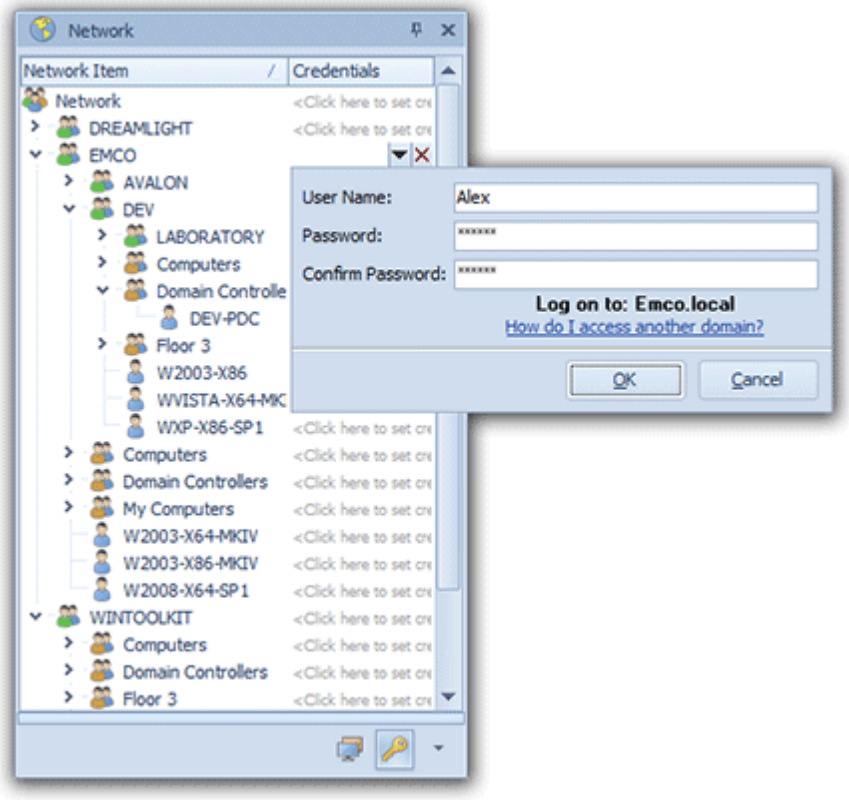
To specify the Alternate Credentials to be used for the network resource, you should select such resource in the **Alternate Credentials** pane and click the button of the credentials part of the in-place edit. Alternatively, you can use the **Set Credentials** button from the **Alternate Credentials** Ribbon group or the **Set Credentials** item from the pop-up menu.

When setting the alternate credentials' user name, pay attention to the domain it will be used for. This information is shown in the **Log on to** field: this field value should be the domain or the Machine name where the account with the respective user name is present. To access the other domain, see How do I access another domain.

The pop-up window Pic 2 is opened for you to specify the credentials for the selected item. You are offered to provide the user name and password to be used for connection in the appropriate fields of the pop-up window. The password confirmation must exactly match the password input.




**Pic 2. Specifying Alternate Credentials**

When you are ready with the credentials specification, press **OK** to proceed.

### Reset Credentials

The **Reset Credentials** button from the **Alternate Credentials** Ribbon group should be used to remove the associated credentials from the selected network resource.

If the specified credentials are no longer needed, you can reset them. To reset the credentials for a network resource, select the required resource in the **Alternate Credentials** pane and click the button of the credentials part of the in-place edit. Alternatively, you can use the **Reset Credentials** button from the **Alternate Credentials** Ribbon group or the **Reset Credentials** item from the pop-up menu.

The management actions described above are also available in the **Alternate Credentials** tree pop-up menu. Pic 3

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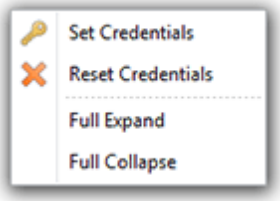


Pic 3. The Alternate Credentials tree pop-up menu

From the pop-up menu, it is also possible to expand or collapse all the nodes in the **Alternate Credentials** tree by using the **Expand All/Collapse All** items.

## How does it work?

Remote Shutdown allows you to specify credentials both for groups of Machines and for individual Machines. Credentials can be provided with or without explicit specification of the domain. The domain may be specified by using the User Principle Name or Down-Level Logon Name.

### User Principal Name

The User Principal Name (UPN) format is used to specify an Internet-style name, such as UserName@Example.Emco.local. The following table summarizes the UPN components.

| Component | Example |
|---|---|
| User account name. Also known as the logon name. | UserName |
| Separator. A character literal, the at sign (@). | @ |
| UPN suffix. Also known as the domain name. | Example.Emco.local |

A UPN can be defined implicitly or explicitly. An implicit UPN has the following form: UserName@FQDN. An implicit UPN is always associated with the user's account, even if an explicit UPN is not defined. An explicit UPN has the form Name@Suffix, where both the name and suffix strings are explicitly defined by the administrator.

### Down-Level Logon Name

The down-level logon name format is used to specify a domain and a user account in that domain, for example, DOMAIN\UserName. The following table summarizes the components of a down-level logon name.

| Component | Example |
|---|---|
| NetBIOS domain name. | DOMAIN |
| Separator. A character literal, the backslash (\). | \ |
| User account name. Also known as the logon name. | UserName |

Beside an explicit domain specification, you can use an implicit one by providing the Down-Level Logon Name with the '.' character instead of the domain part (.\UserName). In such case, the '.' character is replaced by the NetBIOS name of the Machine to connect to.

If the user name is provided without an explicit or implicit domain specification, the application generates one of the user name formats described above using the following rules:

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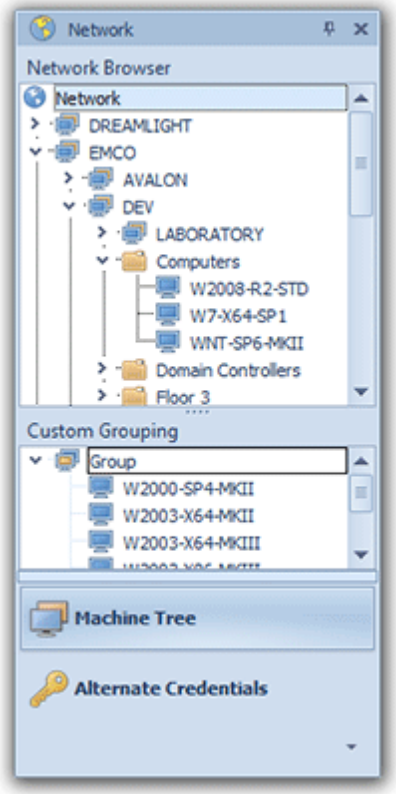
- If credentials are specified on the Machine node, the following Down-Level Logon Name is generated for connection: MACHINE\UserName, where 'MACHINE' is the NetBIOS name of the Machine the application is connecting to and 'UserName' is the specified user name.
- If credentials are specified on the Network or Group node, than the group the Machine is located in is used to form the user name used for connection. If the group is an Active Directory domain, then the following UPN name is formed: UserName@FQDN, where 'UserName' is the specified user name and 'FQDN' is a fully qualified name of the domain the Machine is located in. In case the group is not an Active Directory domain, the following Down-Level Logon Name is generated for connection: DOMAIN\UserName, where 'DOMAIN' is the NetBIOS name of the group the Machine is located in and 'UserName' is the specified user name.

## Examples for Alternate Credentials specification

Specifying Alternate Credentials for complex network environments may not be a trivial task, and this chapter is written to show you some examples that can help you with this task. Let's assume we have the following network structure:

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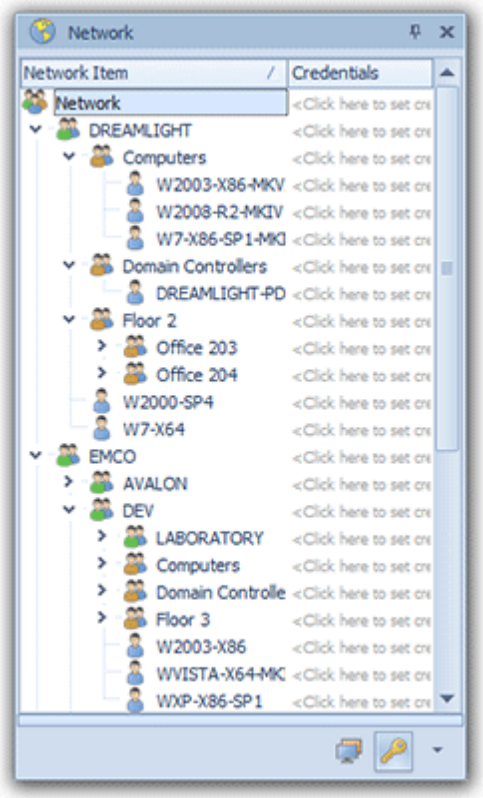
Consider the following methods of setting the alternate credentials:

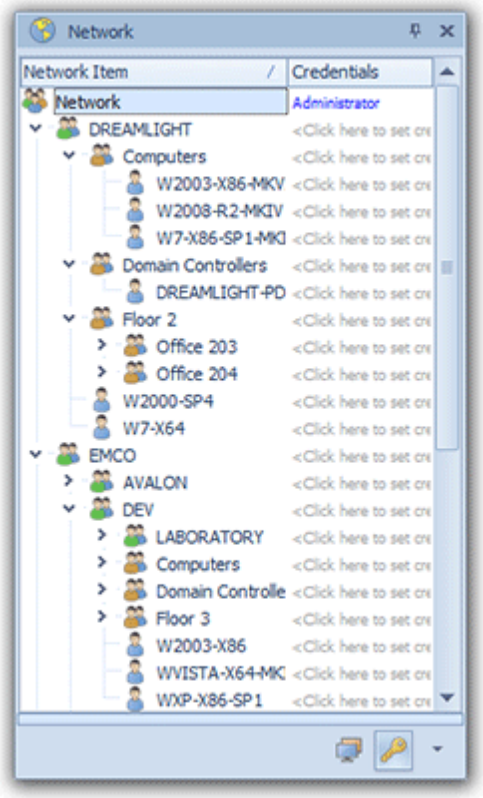
1. The Alternate Credentials are not set for any item. Retrieving data from the network will take place using the current user credentials.

Example




2. The Alternate Credentials are set for the *Network* item. Retrieving data from the network will take place using the credentials set for the Network.

Example

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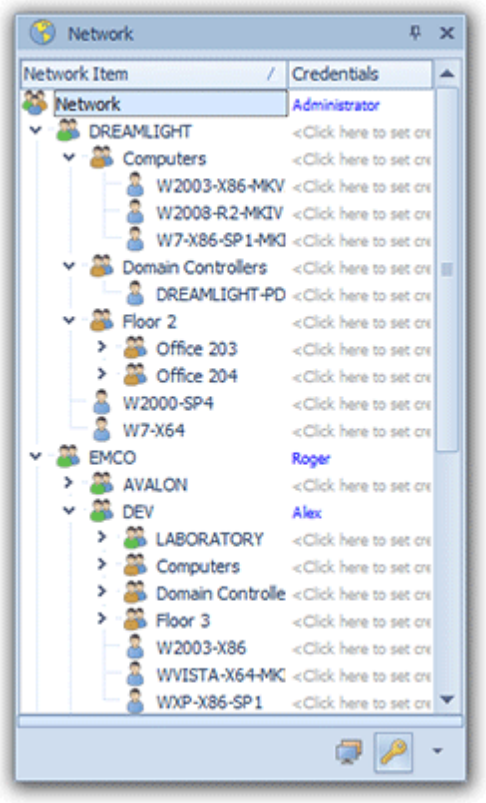
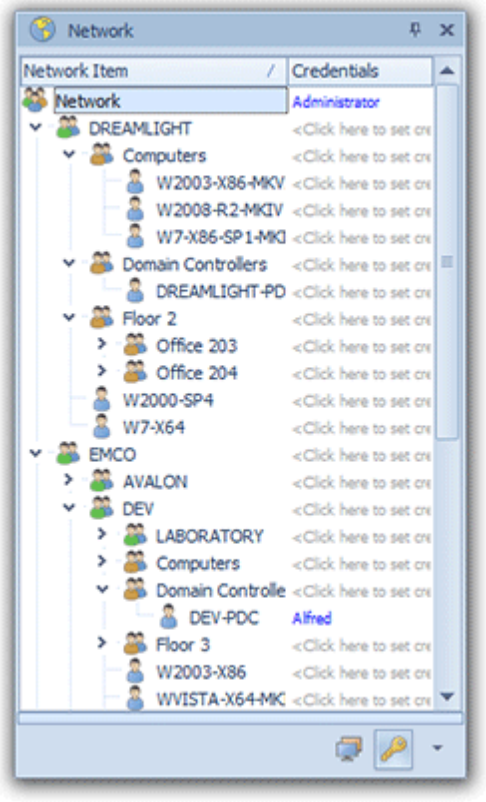
3. Two different Alternate Credentials are set for the *EMCO* and *DEV* groups. Retrieving data from the *DEV* group Machines will take place using the credentials set for the *DEV* group, data from the *EMCO* group Machines will be retrieved using the credentials set for the *EMCO* group.

Example




4. The Alternate Credentials are set for the *Dev-PDC* Machine. The current user credentials will be used for retrieving data for all the Machines in the network except for those from *Dev-PDC*, for which the respective preset credentials will be used.

Example

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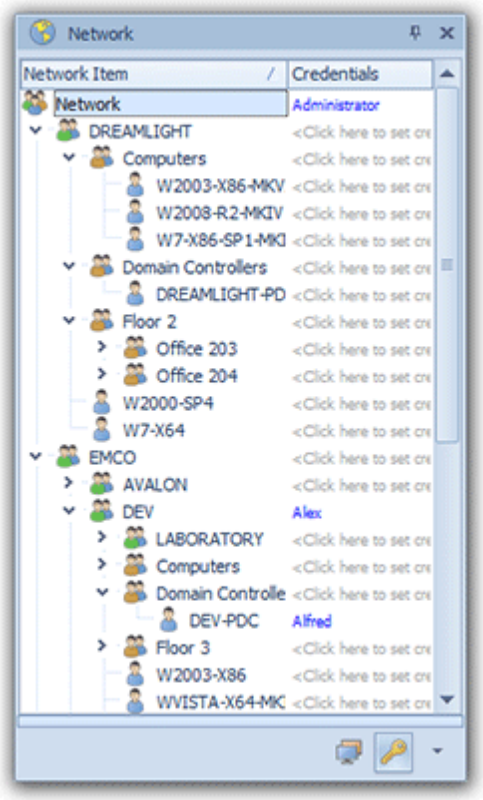
5. Three different Alternate Credentials are set for the *Network*, the *DEV* group and the *Dev-PDC* Machine. Retrieving data from the Emco group computers will take place using the credentials set for the *Network*, the *DEV* group will use the credentials specified for the *DEV* group and for *Dev-PDC* the credentials set for *Dev-PDC* will be used.

Example




## How do I access another domain?

By default, the credentials used for a Machine are applied as credentials for the domain where the remote Machine is located. It is displayed in the **Log on to** field of the credentials edit. In case you need to use the remote Machine's local account or the account from a domain that differs from the one provided by default, you should explicitly specify the Machine or the domain where the account is located in the user name. The **Log on to** field value is then changed to give you a clear understanding of which domain credentials are used.

> The **Log on to** field displays, by default, the name of the domain where the network resource is located. If you explicitly specify a certain account, this field shows the domain or computer name for the account you are using. Thus, it always displays actual information about the domain to be used to establish connection.

To do the actions described above, you should input the value in the following format to the User Name field of the alternate credentials pop-up edit: Pic 1

**<Username>@<FQDN>** - for an explicit specification of an Active Directory domain account, where 'FQDN' is a fully qualified name of the domain.

**<Domain name>\<User name>** - for an explicit specification of a domain account, where 'Domain name' is a NetBIOS name of the domain to be used.

**<Machine name>\<User name>** - for an explicit specification of a remote Machine account.

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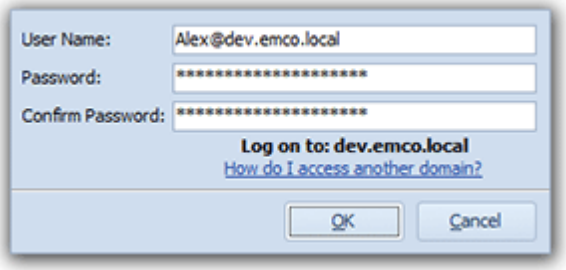


**Pic 1. Providing the specific domain credentials**

Now you know how to provide the credentials to be used from a specific domain and can configure network credentials without any difficulties.

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# Chapter 10: Application Preferences

Remote Shutdown comes with a big range of settings available for changing to each user. Every preference page has a detailed description of its content and of the feature it is used to configure. You can configure almost everything: application behavior regarding the System Tray, database storage, proxy settings to be used to connect to the Internet, etc. To reach application preferences click **Preferences** button available from the **Application Menu**. Also the clickable **Ribbon** groups' glyphs open the preference pages that configure the functionality assembled in this group.

### What's inside

Remote Shutdown
Tasks and Schedule
Miscellaneous

## Remote Shutdown

The **Network** part of the application preferences should be used to configure the Network Enumeration process behavior and remote Machines scan options. To open the **Preferences** dialog click **Preferences** button available from the **Application Menu**. Feel free to configure the settings available to best feet your needs.

### What's inside

Enumeration Options
Scan Settings
Wake On LAN

## Scan Settings

The scan settings are designed to enable you to configure the processing of remote Machines in the most optimal way depending on the network structure, thus increasing the overall scan performance. Pic 1 To configure the scan settings, click the Preferences button in the **Application Menu** and switch to the **Scan Settings** preference page using the corresponding link in the navigation bar on the left in the **Preferences** dialog within the **Remote Shutdown** group.

You are offered to configure the Machines availability detection and hyper-threading technology options.

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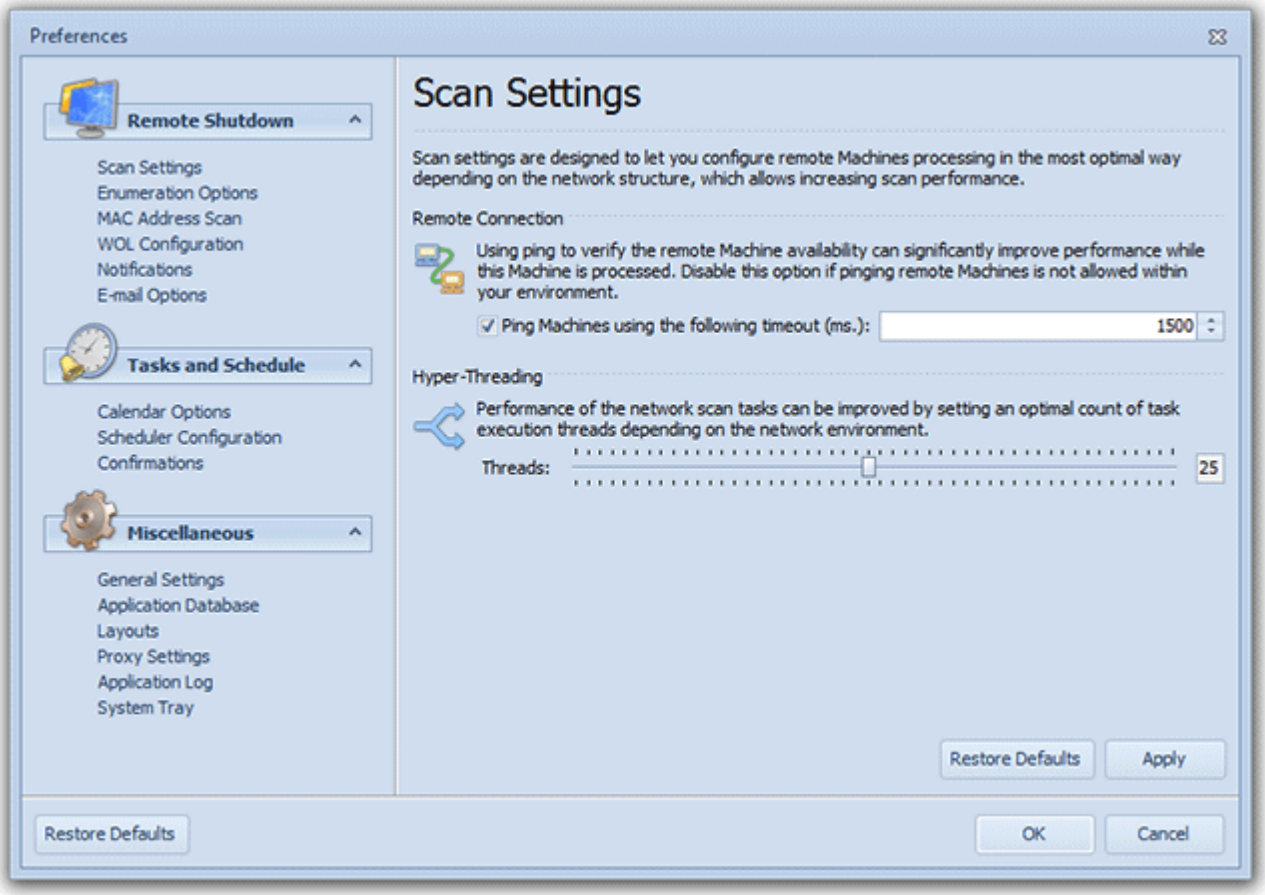
Preferences
Remote Shutdown
Scan Settings
Enumeration Options
MAC Address Scan
WOL Configuration
Notifications
E-mail Options
Tasks and Schedule
Calendar Options
Scheduler Configuration
Confirmations
Miscellaneous
General Settings
Application Database
Layouts
Proxy Settings
Application Log
System Tray
Scan Settings
Scan settings are designed to let you configure remote Machines processing in the most optimal way depending on the network structure, which allows increasing scan performance.
Remote Connection
Using ping to verify the remote Machine availability can significantly improve performance while this Machine is processed. Disable this option if pinging remote Machines is not allowed within your environment.
Ping Machines using the following timeout (ms.):
1500
Hyper-Threading
Performance of the network scan tasks can be improved by setting an optimal count of task execution threads depending on the network environment.
Threads:
25
Restore Defaults
Apply
Restore Defaults
OK
Cancel

**Pic 1. Configuring scan settings.**

Remote Shutdown provides an option of detecting the remote Machines' availability by pinging them before processing. This can significantly speed up bulk operations on remote computers, but if your environment has any ping restrictions, you should disable this option, so that remote Machines that are not allowed to be pinged could also be processed. To detect remote Machines' availability using the ping functionality, check the **Ping Machines using the following timeout (ms.)** option and provide the required timeout value.

The ultimate Hyper-Threading technology provided by EMCO allows you to perform network operations in parallel to reach the highest performance available. You can set an optimal operation execution threads count depending on the network environment by using the **Threads** editor.

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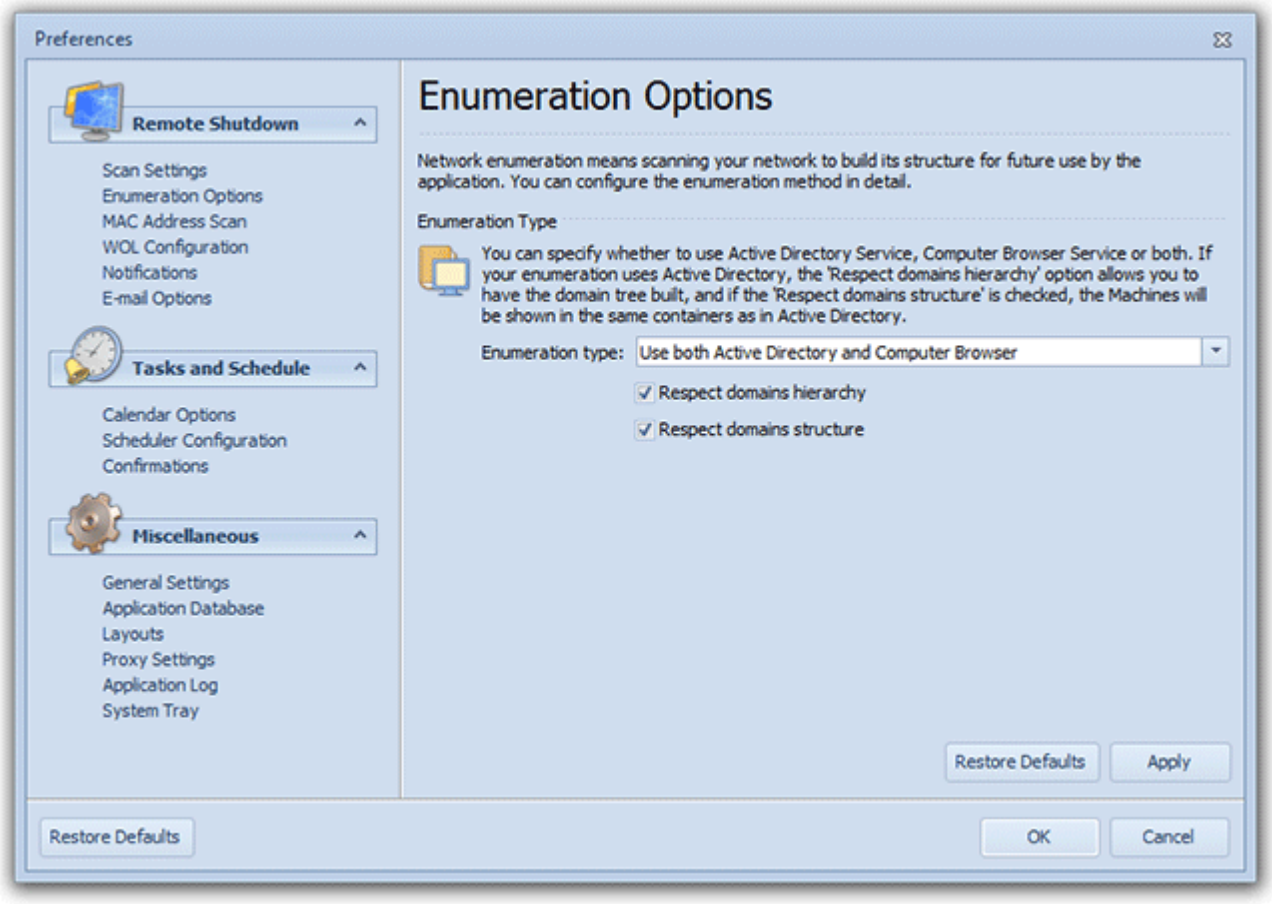
## Enumeration Options

Enumeration options are designed to make the network enumeration process clearer and more comfortable for you. Pic 1 To configure the enumeration options, click the glyph of the **Network** Ribbon group. Also, you can click the Preferences button from the **Application Menu** and switch to the **Enumeration Options** preference page using the appropriate link in the navigation bar on the left in the **Preferences** dialog within the **Remote Shutdown** group.


Preferences
Remote Shutdown
Scan Settings
Enumeration Options
MAC Address Scan
WOL Configuration
Notifications
E-mail Options
Tasks and Schedule
Calendar Options
Scheduler Configuration
Confirmations
Miscellaneous
General Settings
Application Database
Layouts
Proxy Settings
Application Log
System Tray
Enumeration Options
Network enumeration means scanning your network to build its structure for future use by the application. You can configure the enumeration method in detail.
Enumeration Type
You can specify whether to use Active Directory Service, Computer Browser Service or both. If your enumeration uses Active Directory, the 'Respect domains hierarchy' option allows you to have the domain tree built, and if the 'Respect domains structure' is checked, the Machines will be shown in the same containers as in Active Directory.
Enumeration type:
Use both Active Directory and Computer Browser
Respect domains hierarchy
Respect domains structure
Restore Defaults
Apply
Restore Defaults
OK
Cancel

**Pic 1. Configuring the enumeration options**

The **Enumeration type** option specifies the way of performing a network scan for Machines.

The Active Directory scan runs significantly faster than the Computer Browser scan and allows you to get more information on your network structure. Also, there is no need for all network computers to be turned on, because information on the network is gathered directly from the domain controller. However, this type of enumeration requires access to the domain controller and won't find Machines that are not registered in the Active Directory database.

For the Active Directory scan, you can also specify if the domain hierarchy and structure should be respected. Respecting the domain hierarchy means that for domains having a tree structure (registered domains and sub-domains) in your Active Directory the result in the **Network Browser** pane will have the same structure representation. If you want to group your Machines in the **Network Browser** pane the same way they are grouped in Active Directory with the help of containers, you can enable the domains structure respect.

Searching for computers by means of Computer Browser will result in finding all the Machines that are turned on and visible from yours during the Enumeration process.

In the combined mode, the application performs the Active Directory scan first, then adds the Machines found by means of Computer Browser.

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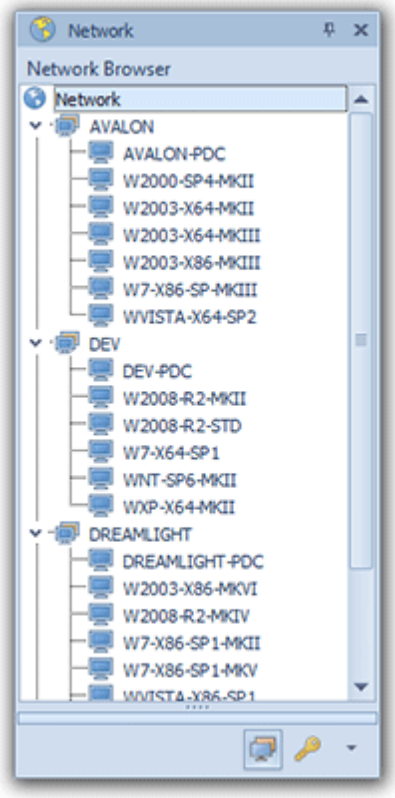
Let us take a look at the results received using a combination of different options:

- Active Directory scan with Respect domains hierarchy and Respect domains structure disabled:

  As a result, all the domains are displayed as children of the Network item with Machines found in them as there children.




- Active Directory scan with Respect domains hierarchy enabled and Respect domains structure disabled:

  As a result, all the domains are displayed in a hierarchy where each sub-domain is located under its parent domain in the **Network Browser** pane (in our case *DEV* is a sub-domain of *EMCO* and *LABORATORY* is a sub-domain for *DEV*) with Machines found in them as there children.

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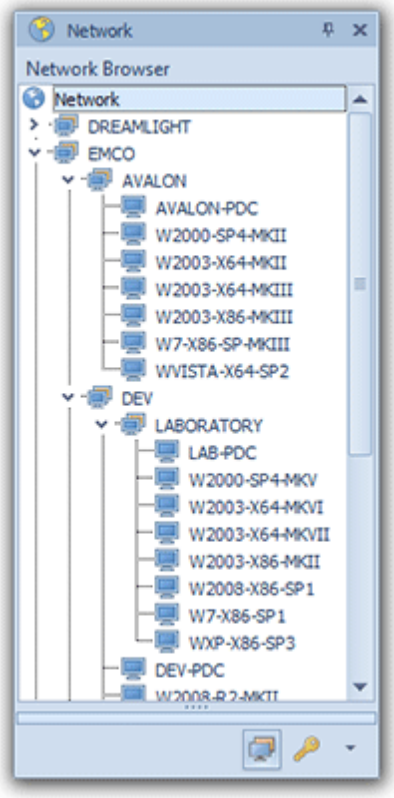
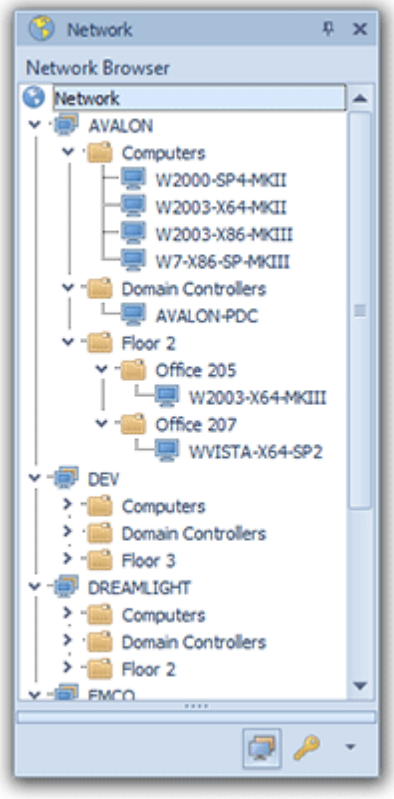



- Active Directory scan with Respect domains hierarchy disabled and Respect domains structure enabled:

  As a result, all the domains are displayed as children of *Network* with Machines found in them grouped by the Active Directory containers they are located in (in our case, those are *Computers* and *Domain Controllers* for all domains).




- Active Directory scan with both Respect domains hierarchy and Respect domains structure enabled:

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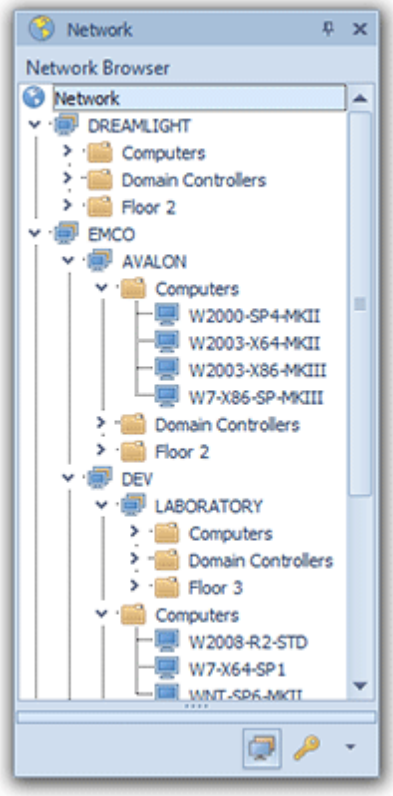
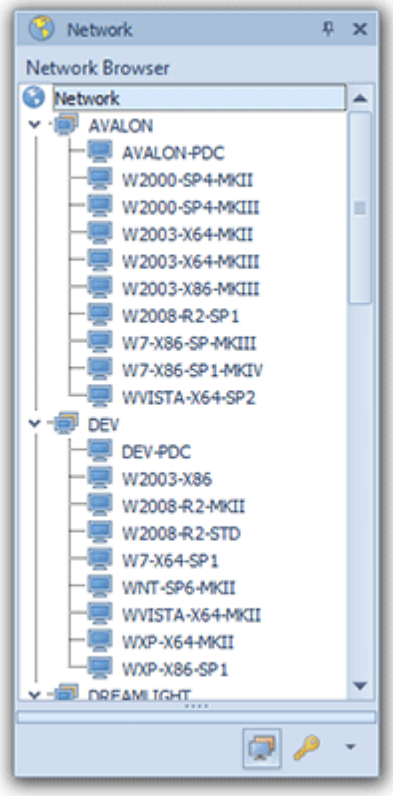
As a result, all the domains are displayed in a hierarchy where each sub-domain is located under its parent domain in the **Network Browser** pane (in our case *DEV* is a sub-domain of *EMCO* and *LABORATORY* is a sub-domain for *DEV*) with Machines found in them grouped by the Active Directory containers they are located in (in our case, those are *Computers* and *Domain Controllers* for all domains).




Computer Browser scan enabled:

As a result, we've got only the Machines that are turned on, including those that are not registered in any domain, and all the workgroups and domains are displayed as children of the *Network* item.

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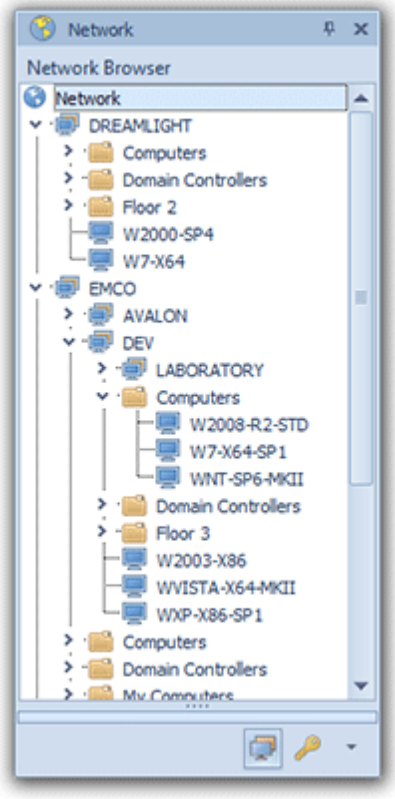
### Both Active Directory and Computer Browser scan enabled:

As a result, we've got both the Machines that are turned on and those that are registered in domains: workgroups, domains and Machines are grouped by the structure respect options.

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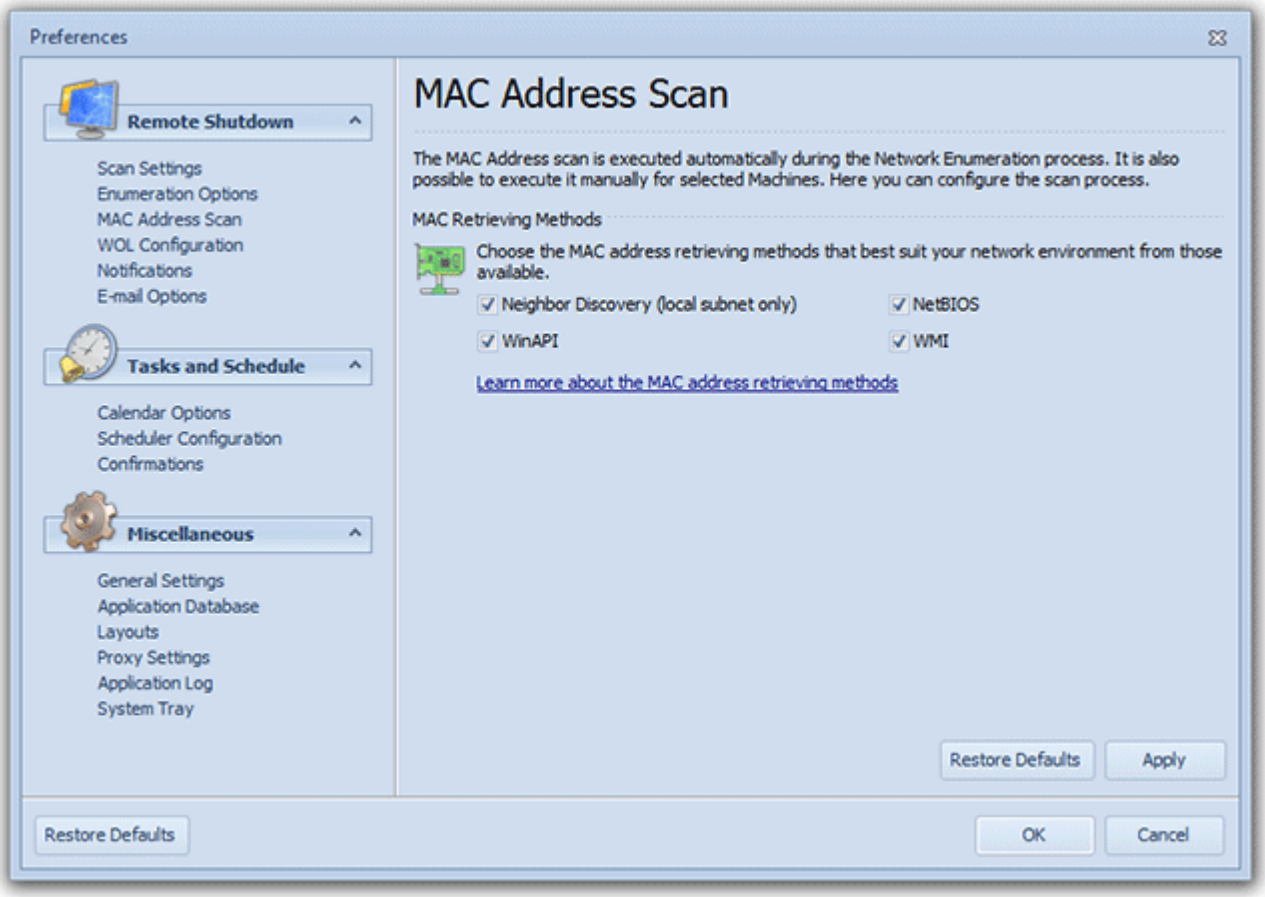
## MAC Address Scan

Remote Shutdown needs to know the remote Machines' MAC addresses to provide you with the Wake-on-LAN feature. The MAC Address Scan is executed automatically during the Network Scan process. The methods used to retrieve the MAC address are configured on the **MAC Address Scan** preference page. Pic 1 To open this page click Preferences button from the **Application Menu** and select **MAC Address Scan** link in the navigation bar on the left in the **Preferences** dialog within the **Remote Shutdown** group.




**Pic 1. Configuring the MAC address scan**

You can choose between the **Neighbor Discovery**, **NetBIOS**, **WinAPI** and **WMI** methods. Each of the methods is described in detail in the MAC Address Scan section.

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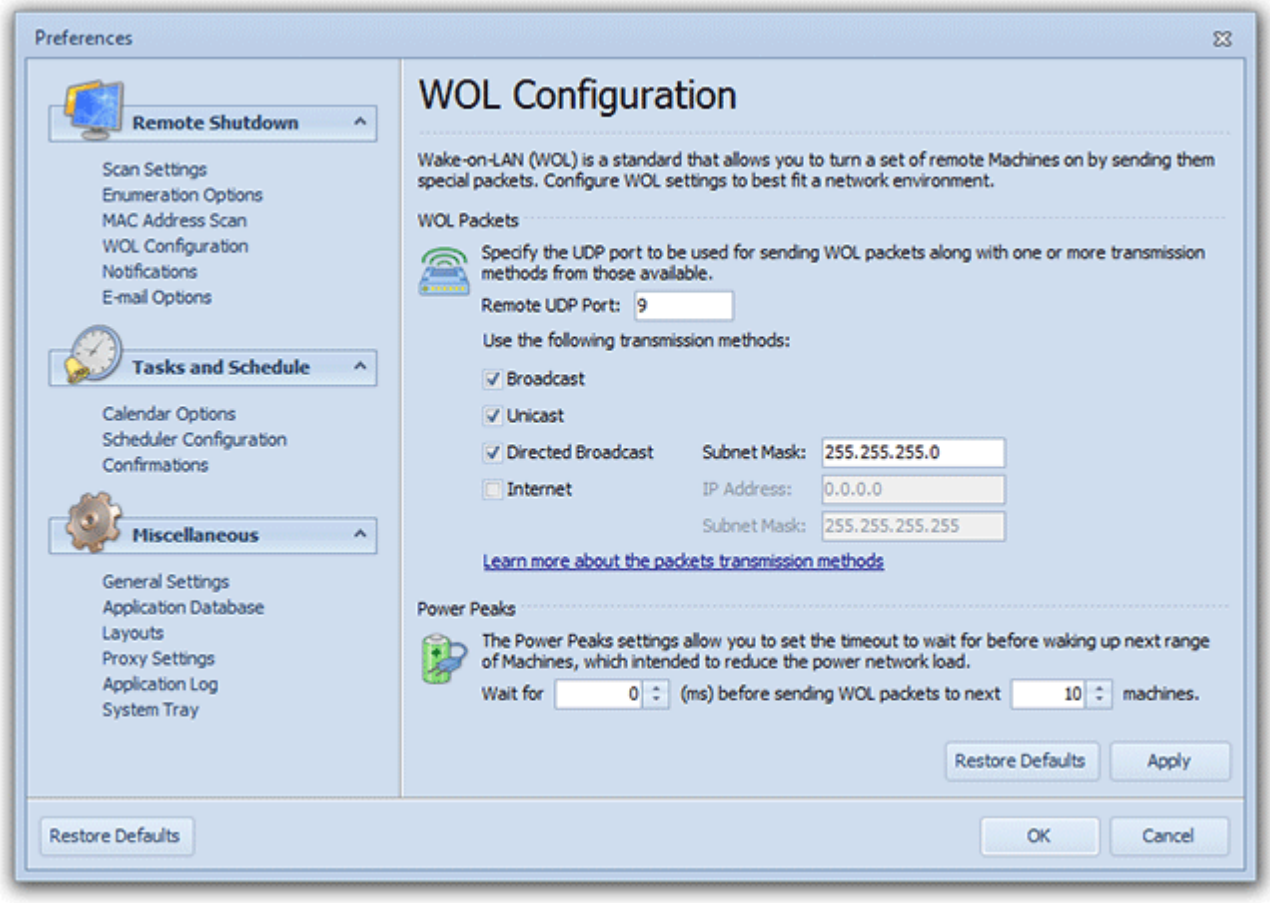
## WOL Configuration

The **WOL Configuration** preference page Pic 1 is used to configure the Wake-On-LAN (WOL) functionality built into Remote Shutdown. To access this preference page press the **Preferences** button from the **Application Menu** and select the **WOL Configuration** link in the navigation bar on the left of the opened dialog.


Preferences
Remote Shutdown
Scan Settings
Enumeration Options
MAC Address Scan
WOL Configuration
Notifications
E-mail Options
Tasks and Schedule
Calendar Options
Scheduler Configuration
Confirmations
Miscellaneous
General Settings
Application Database
Layouts
Proxy Settings
Application Log
System Tray
WOL Configuration
Wake-on-LAN (WOL) is a standard that allows you to turn a set of remote Machines on by sending them special packets. Configure WOL settings to best fit a network environment.
WOL Packets
Specify the UDP port to be used for sending WOL packets along with one or more transmission methods from those available.
Remote UDP Port: 9
Use the following transmission methods:
Broadcast
Unicast
Directed Broadcast
Subnet Mask: 255.255.255.0
Internet
IP Address: 0.0.0.0
Subnet Mask: 255.255.255.255
Learn more about the packets transmission methods
Power Peaks
The Power Peaks settings allow you to set the timeout to wait for before waking up next range of Machines, which intended to reduce the power network load.
Wait for 0 (ms) before sending WOL packets to next 10 machines.
Restore Defaults
Apply
Restore Defaults
OK
Cancel

Pic 1. Configuring the Wake On LAN functionality

You can choose the UDP port to be used for sending Wake-on-LAN package in the **Remote UDP** port field. UDP traffic through this port should be forwarded on the routers that connect the Machine Remote Shutdown is running on with the Machines you want to wake up.

The other thing to specify is one or more of the transmission methods to be used for sending the packet. You can choose from the following methods:

- **Broadcast** – should be used to wake up the Machines from the same subnet the PC with Remote Shutdown running is located in using a broadcast.
- **Unicast** – should be used to wake up the Machines using the Machines' IP address. This is a more secure solution but Wake On LAN will fail to find target computers that have changed their subnet address since the last hardware inventory schedule.
- **Directed broadcast** – should be used to wake up Machines from different subnet, according to the subnet mask specified, using a directed broadcast.
- **Internet** – should be used to wake up Machines over the Internet using the IP address of the Machine, modem or router and the subnet mask.

Power Peaks Settings allows you to set a timeout to wait for before waking up next range of Machines along with the number of Machines that can be waken up at one moment though reduce the load on the electricity network while waking up a large number of Machines.

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## Transmission methods used for sending WOL packets

Let us take a closer look on each method of forming a destination address for the magic packet to be sent.

The **Broadcast** method is using the 255.255.255.255 address as a destination address. This is a broadcast address that stands for *this network* – it means that the magic packet is sent to all Machines from the subnet Remote Shutdown host machine is located in. For example, let us suppose that Remote Shutdown is running on the MERCURIUS machine that has the 192.168.1.10 address and is a part of subnet with the 255.255.255.0 mask. In such a case all the Machines from the 192.168.1.0 network will receive the packet.

The **Unicast** method is using an IP address of the remote Machine to send the magic packet to. In such a case the magic packet will be delivered only if the ARP cache still contains the entry that stands for the address specified. This method will also fail if the remote Machine host could not be resolved.

For more information about the unicast transmission see the Transmission methods overview section.

The **Directed Broadcast** is a datagram which is sent to the broadcast address of a subnet to which the sending machine is not directly attached. The directed broadcast is routed through the network as a unicast packet until it arrives at the target subnet, where it is converted into a link-layer broadcast. Because of the nature of the IP addressing architecture, only the last router in the chain, the one that is connected directly to the target subnet, can conclusively identify a directed broadcast. Directed broadcasts are occasionally used for legitimate purposes, but such use is not common outside the financial services industry. The broadcast address is calculated using the IP address of the remote Machine and the specified subnet mask. Let us suppose we are running Remote Shutdown on the MERCURIUS machine that has the 192.168.1.10 address in and is a part of subnet with the 255.255.255.0 mask. This case is quite simple – if we are going to wake up the TYRONE machine that has the 192.168.5.1 address the packet will be sent to 192.168.5.255 address – note that it will be delivered till the 192.168.5.0 network router as a unicast. The more complex case if, for example, the 255.255.255.192 mask is used, dividing the C-class network to four subnets. If we are going to wake up the TYRONE machine that has the 192.168.5.1 address the packet will be sent to the 192.168.5.63 address, and for LAB-PDC with the 192.168.5.130 address – to 192.168.5.191. So in any case the packet should be received by the destination subnet.

Please notice that routers default configuration does not allow broadcasts between different subnets to protect from network attacks, but you can allow broadcasts only from the Remote Shutdown hosting Machine via the port defined in the preferences. This method will also fail if the remote Machine host could not be resolved.

For more information about the broadcast transmission see the Transmission methods overview section.

The **Internet** method should be used to wake up Machines over the Internet or from a specific subnet. To wake up Machines over the Internet you should specify the IP address or host name of the Machine, modem or router visible from the Internet and leave subnet mask the 255.255.255.255. In such a case the packet will be sent to the address specified using the Unicast transmission – the router should be configured to forward the packets received to a specific Machine or the whole subnet for the Wake-on-LAN to succeed. The other case of using this method is waking up the Machines from a different subnet that cannot be resolved. To reach the goal the IP address of any Machine from that subnet should be provided along with the subnet mask used for the interested subnet. The packets will be sent to that subnet using the Directed Broadcast transmission.

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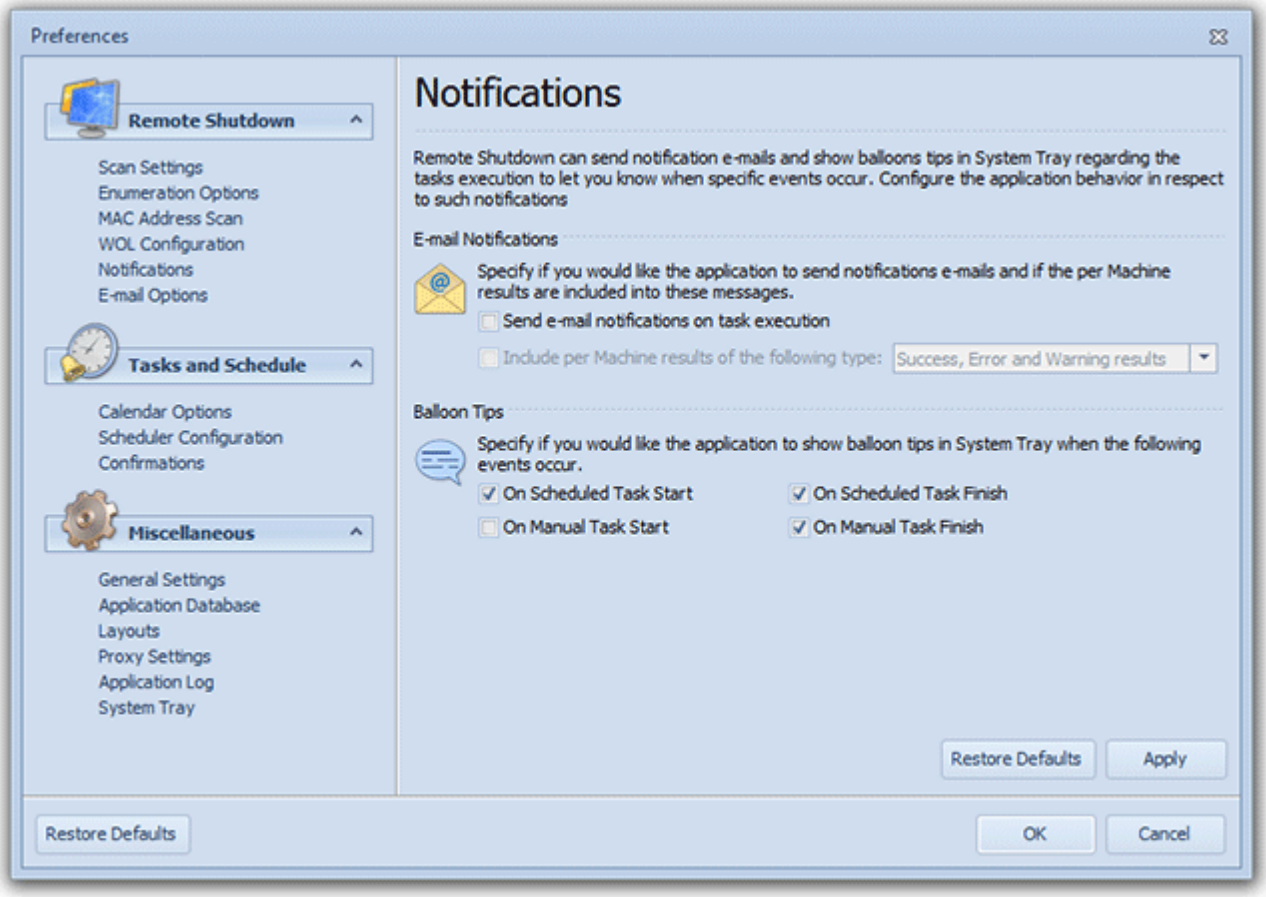
## Notifications

Another useful feature of Remote Shutdown is that it can send notification e-mails to a preset e-mail address and show balloon tips on occurrence of certain events. This feature can be configured on the **Notifications** preference page Pic 1, and the messages are sent using the **E-mail Options** specified.


Preferences
Remote Shutdown
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MAC Address Scan
WOL Configuration
Notifications
E-mail Options
Tasks and Schedule
Calendar Options
Scheduler Configuration
Confirmations
Miscellaneous
General Settings
Application Database
Layouts
Proxy Settings
Application Log
System Tray
Notifications
Remote Shutdown can send notification e-mails and show balloons tips in System Tray regarding the tasks execution to let you know when specific events occur. Configure the application behavior in respect to such notifications
E-mail Notifications
Specify if you would like the application to send notifications e-mails and if the per Machine results are included into these messages.
Send e-mail notifications on task execution
Include per Machine results of the following type:
Success, Error and Warning results
Balloon Tips
Specify if you would like the application to show balloon tips in System Tray when the following events occur.
On Scheduled Task Start
On Scheduled Task Finish
On Manual Task Start
On Manual Task Finish
Restore Defaults
Apply
Restore Defaults
OK
Cancel

**Pic 1. Configuring notifications**

To access the notifications configuration page, click the **Preferences** button in the **Application Menu** and switch to the **Notifications** preference page using the appropriate link in the navigation bar on the left of the **Preferences** dialog within the **Remote Shutdown** group. On the page that opens, you may check the events you want to send notification messages and show balloon tips for.

For the e-mail notifications it is possible to choose if the per Machine results with the specific severity are include to the notification e-mail.

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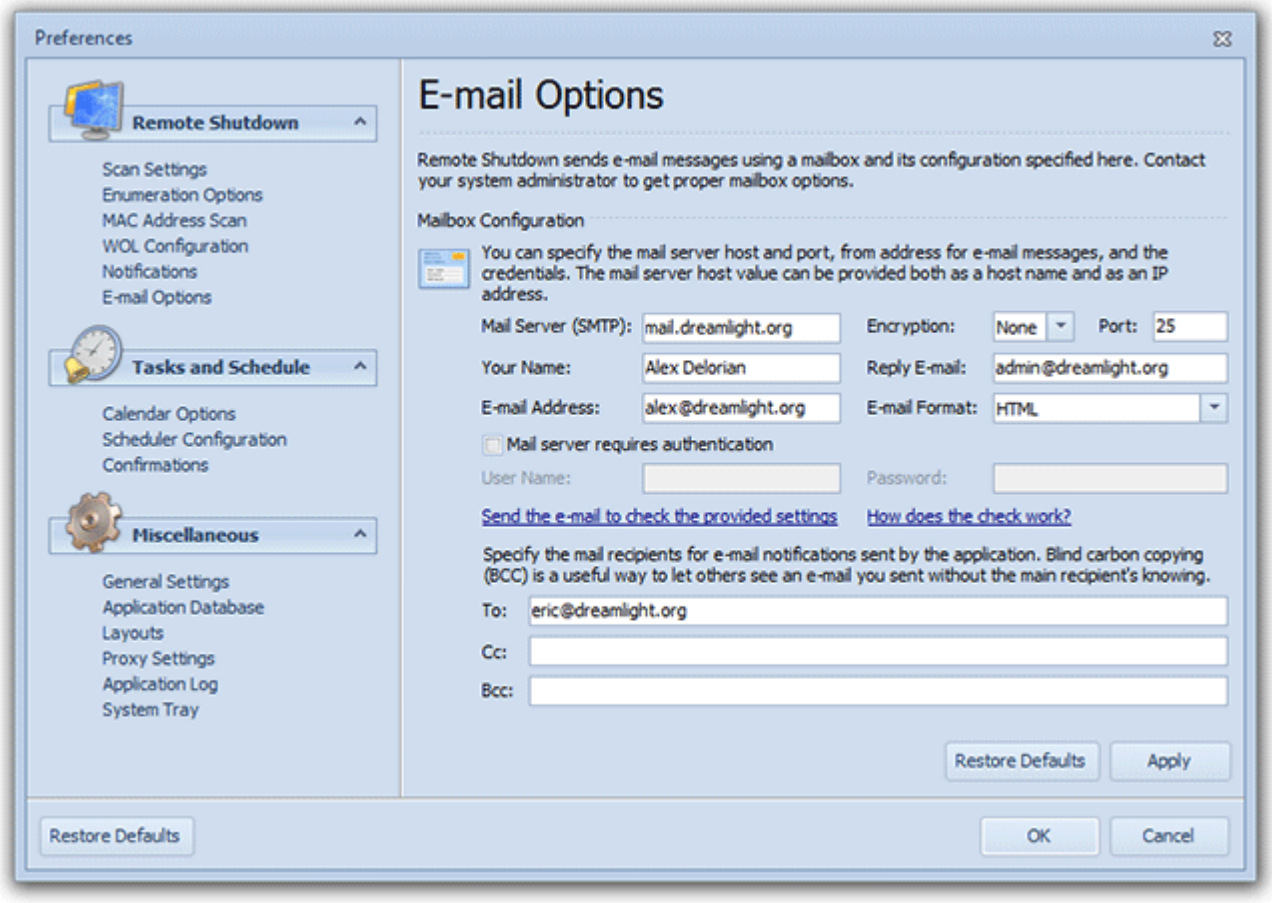
## E-mail Options

Remote Shutdown can send notification e-mails only after your mailbox settings have been configured properly. To perform the mailbox configuration click the **Preferences** button from the **Application Menu** and select the **E-mail Options** link in the navigation bar on the left in the **Preferences** dialog within the **Remote Shutdown** group.


Preferences
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MAC Address Scan
WOL Configuration
Notifications
E-mail Options
Tasks and Schedule
Calendar Options
Scheduler Configuration
Confirmations
Miscellaneous
General Settings
Application Database
Layouts
Proxy Settings
Application Log
System Tray
E-mail Options
Remote Shutdown sends e-mail messages using a mailbox and its configuration specified here. Contact your system administrator to get proper mailbox options.
Mailbox Configuration
You can specify the mail server host and port, from address for e-mail messages, and the credentials. The mail server host value can be provided both as a host name and as an IP address.
Mail Server (SMTP): mail.dreamlight.org
Encryption: None
Port: 25
Your Name: Alex Delorian
Reply E-mail: admin@dreamlight.org
E-mail Address: alex@dreamlight.org
E-mail Format: HTML
Mail server requires authentication
User Name:
Password:
Send the e-mail to check the provided settings
How does the check work?
Specify the mail recipients for e-mail notifications sent by the application. Blind carbon copying (BCC) is a useful way to let others see an e-mail you sent without the main recipient's knowing.
To: eric@dreamlight.org
Cc:
Bcc:
Restore Defaults
Apply
Restore Defaults
OK
Cancel

**Pic 1. Configuring a mailbox**

You should specify the mail server host, the encryption type the port to be used for connection to the mail server, the e-mail address to send e-mail messages from, the e-mail message format and the credentials to be used to access the mail server. The **Mail Server (SMPT)** value can be provided both as an IP address and as a host name. Pic 1

Remote Shutdown supports mail servers that run using SMTP. A mail server configuration may be quite complex. Contact your system administrator to get proper configuration details to be used for accessing your mailbox.

You can send a test e-mail to check the settings provided using an appropriate hyperlink. In the next section, it is described how the settings check works and how you can tell if the e-mail options are configured properly.

### How does the check work?

After you have configured the e-mail options you can send a test e-mail to check the mail server settings. A test message is generated and sent to the specified recipients and the e-mail address specified in the **E-mail Address** field. If you and the other recipients receive the message, it is assumed that the mail options are configured properly, and there will be no problems with sending notification e-mail messages.

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## Tasks and Schedule

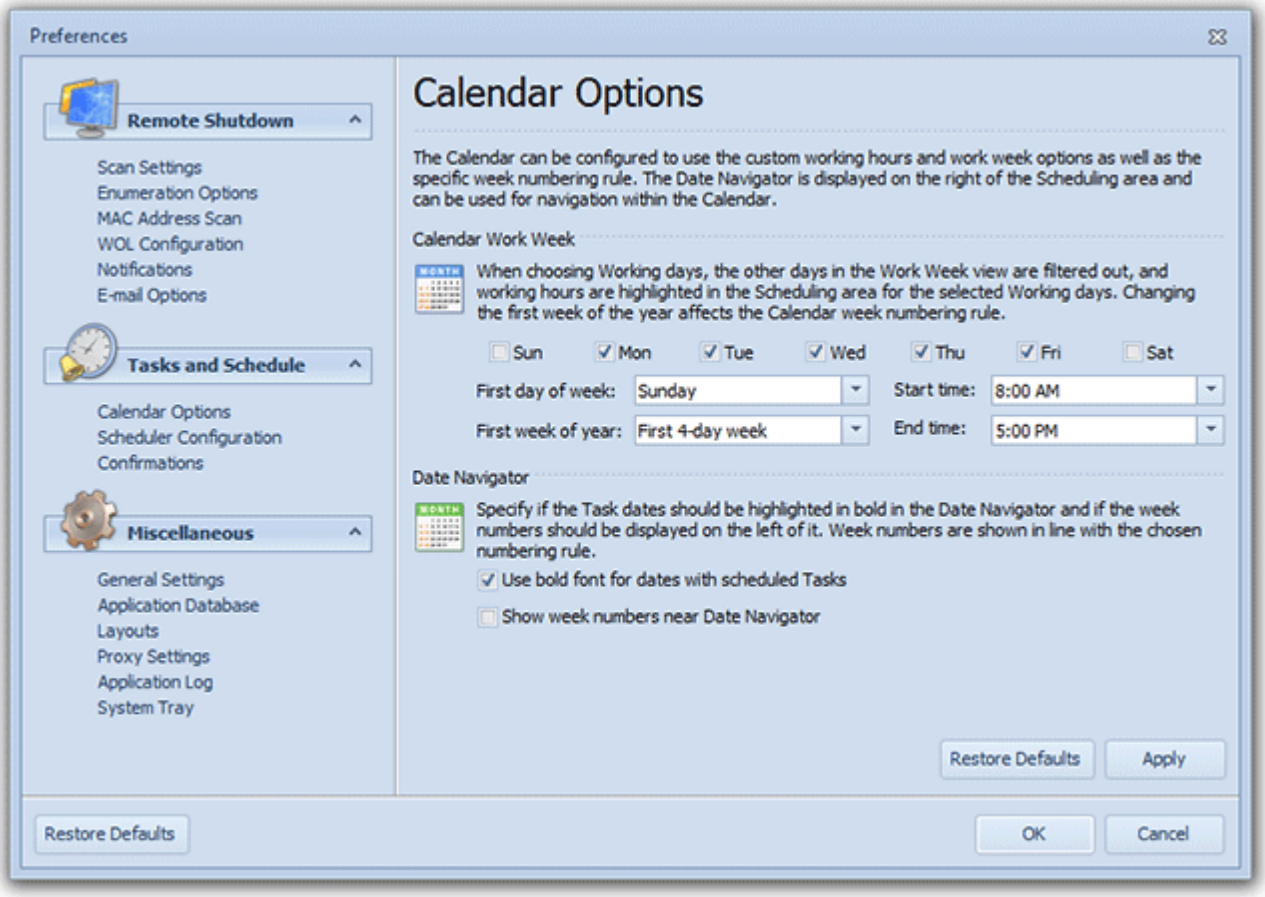
The **Tasks and Schedule** part of the application preferences should be used to configure the Remote Shutdown features targeted at executing tasks and scheduling their execution, as well as configuring the **Calendar** view. To open the **Preferences** dialog, click the **Preferences** button available from the **Application Menu**. Feel free to configure the available settings to meet your needs best.

### What's inside

Calendar Options
Scheduler Configuration
Confirmations

## Calendar Options

The **Calendar Options** are designed to make the process of interaction with the **Tasks and Schedule** functionality more convenient for you and enable you to use the whole range of the **Tasks and Schedule** features to solve your tasks in a more efficient way. To configure the **Calendar Options**, click the **Preferences** button from the **Application Menu** and switch to the **Calendar Options** preference page using the corresponding link in the navigation bar on the left in the **Preferences** dialog within the **Tasks and Schedule** group. Pic 1


Preferences
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E-mail Options
Tasks and Schedule
Calendar Options
Scheduler Configuration
Confirmations
Miscellaneous
General Settings
Application Database
Layouts
Proxy Settings
Application Log
System Tray
Calendar Options
The Calendar can be configured to use the custom working hours and work week options as well as the specific week numbering rule. The Date Navigator is displayed on the right of the Scheduling area and can be used for navigation within the Calendar.
Calendar Work Week
When choosing Working days, the other days in the Work Week view are filtered out, and working hours are highlighted in the Scheduling area for the selected Working days. Changing the first week of the year affects the Calendar week numbering rule.
Sun
Mon
Tue
Wed
Thu
Fri
Sat
First day of week:
Sunday
Start time:
8:00 AM
First week of year:
First 4-day week
End time:
5:00 PM
Date Navigator
Specify if the Task dates should be highlighted in bold in the Date Navigator and if the week numbers should be displayed on the left of it. Week numbers are shown in line with the chosen numbering rule.
Use bold font for dates with scheduled Tasks
Show week numbers near Date Navigator
Restore Defaults
Apply
Restore Defaults
OK
Cancel

**Pic 1. Configuring the Calendar Options.**

After you have chosen the working days, the other days in the **Work Week** view are filtered out, and the working hours are highlighted in the **Scheduling** area for the selected working days. Changing the first week of the year affects the **Date Navigator** week numbering rule.

On this page, it is also possible to define if the Task execution dates should be highlighted in bold in the **Date Navigator** and if the week numbers should be displayed on the left, next to each week.

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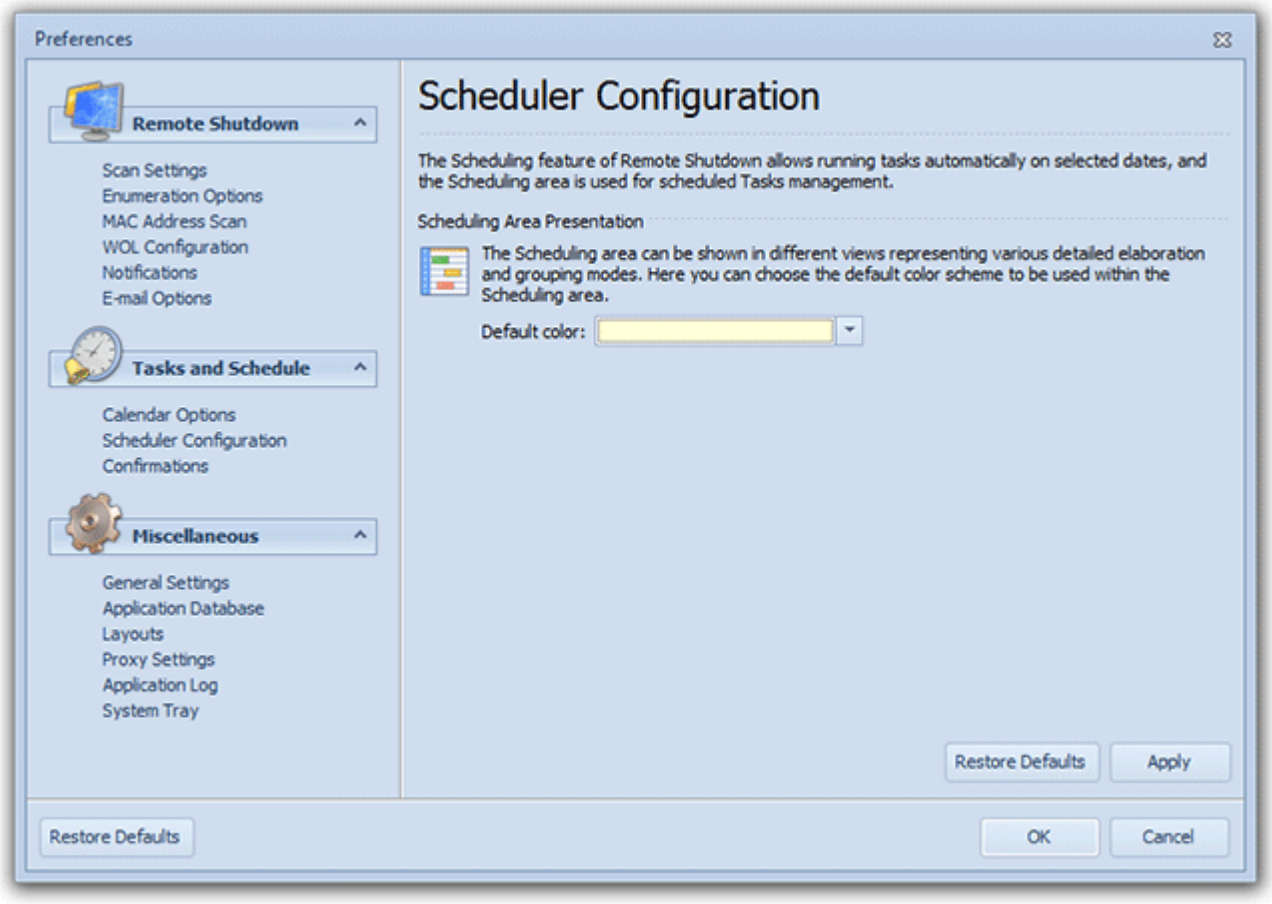
## Scheduler Configuration

The **Scheduler Configuration** preference page contains settings for representation of the **Scheduling** area. To change the **Scheduler Configuration**, click the Preferences button from the **Application Menu** and switch to the **Scheduler Configuration** preference page using the corresponding link in the navigation bar on the left in the **Preferences** dialog within the **Tasks and Schedule** group. Pic 1




Pic 1. Changing the Scheduler Configuration

The **Scheduling Area Presentation** group of the **Scheduler Configuration** preference page should be used to change the default color scheme used by the **Scheduling** area.

## Confirmations

In some cases, the user's decision may be required for Remote Shutdown to perform further steps, so that the user could get an anticipated result. However, if your decision is always the same, you may not want to see the confirmation requests again and again. The **Confirmations** preference page Pic 1 was designed to help you set your preferences.

To access this page, click the **Preferences** button from the **Application Menu** and select the appropriate link in the navigation bar on the left of the **Preferences** dialog within the **Tasks and Schedule** group.

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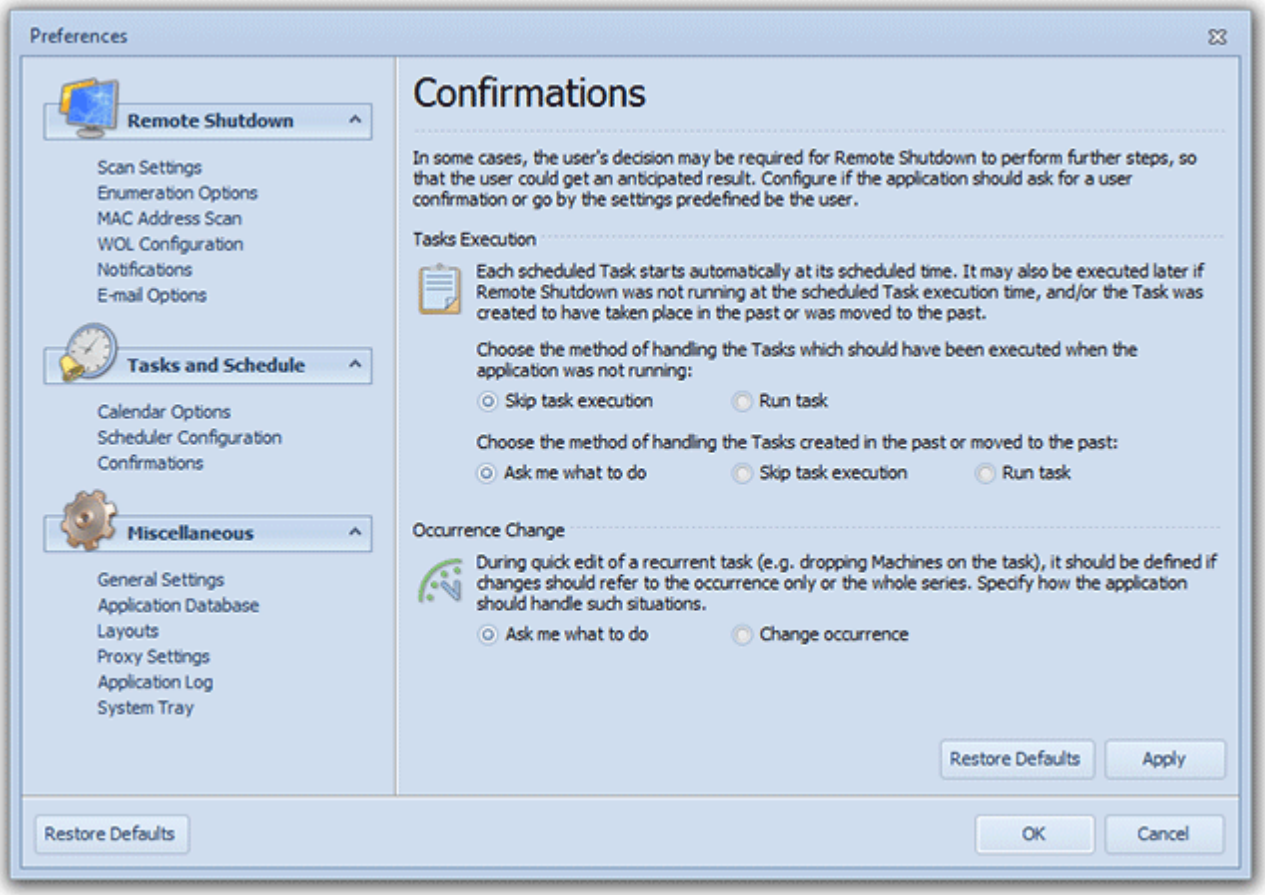
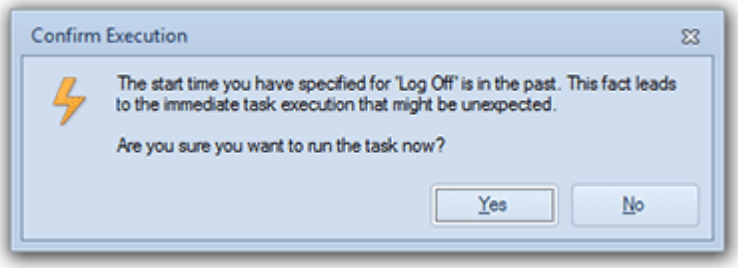

Preferences
Remote Shutdown
Scan Settings
Enumeration Options
MAC Address Scan
WOL Configuration
Notifications
E-mail Options
Tasks and Schedule
Calendar Options
Scheduler Configuration
Confirmations
Miscellaneous
General Settings
Application Database
Layouts
Proxy Settings
Application Log
System Tray
Confirmations
In some cases, the user's decision may be required for Remote Shutdown to perform further steps, so that the user could get an anticipated result. Configure if the application should ask for a user confirmation or go by the settings predefined be the user.
Tasks Execution
Each scheduled Task starts automatically at its scheduled time. It may also be executed later if Remote Shutdown was not running at the scheduled Task execution time, and/or the Task was created to have taken place in the past or was moved to the past.
Choose the method of handling the Tasks which should have been executed when the application was not running:
Skip task execution
Run task
Choose the method of handling the Tasks created in the past or moved to the past:
Ask me what to do
Skip task execution
Run task
Occurrence Change
During quick edit of a recurrent task (e.g. dropping Machines on the task), it should be defined if changes should refer to the occurrence only or the whole series. Specify how the application should handle such situations.
Ask me what to do
Change occurrence
Restore Defaults
Apply
Restore Defaults
OK
Cancel

Pic 1. Configuring confirmations

The confirmations are divided into two groups: the **Task Execution** and **Occurrence Change** confirmations. Let us take a closer look at each group.

The **Task Execution** confirmations are required to let the scheduling engine know if it should execute the tasks that should have been executed when the application was not running (such tasks are called Past Tasks), and if it should execute the tasks moved to the past or created for the past. By default, the **Confirm Execution** dialog Pic 2 is displayed on the screen to let you decide what to do with each task.


Confirm Execution
The start time you have specified for 'Log Off' is in the past. This fact leads to the immediate task execution that might be unexpected.
Are you sure you want to run the task now?
Yes
No

Pic 2. Confirm Execution dialog

However, if your decision is always the same, you can simply choose the **Skip task execution** or **Run Task** option to always perform the selected action with respect to Past Tasks. The same approach is used for the tasks created for the past and moved to the past.

The **Occurrence Change** confirmation Pic 3 is displayed during a quick edit of a recurrent task (e. g. dropping Machines on some occurrence). For that confirmation, it should be defined if the changes should refer to the particular occurrence only or the whole series.

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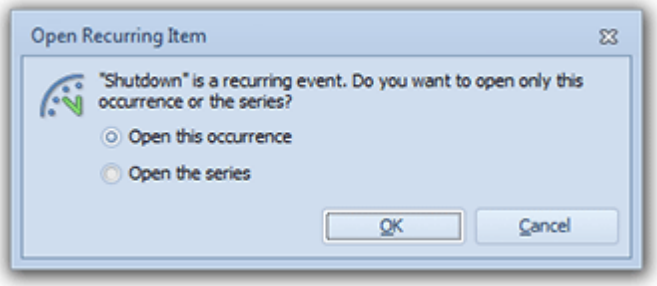
Open Recurring Item
"Shutdown" is a recurring event. Do you want to open only this occurrence or the series?
Open this occurrence
Open the series
OK
Cancel

**Pic 3. Change Recurring Item confirmation dialog**

If you want to always change the occurrence, simply choose the **Change occurrence** option on this page.

## Miscellaneous

The **Miscellaneous** part of the application preferences should be used to configure the common Remote Shutdown options, such as the application behavior in respect to the System Tray, the proxy settings to be used to connect to the Internet, etc. To open the **Preferences** dialog, click the **Preferences** button available from the **Application Menu**. Configure the available settings to best suit your needs.

### What's inside

General Settings
Application Database
Proxy Settings
Application Log
System Tray

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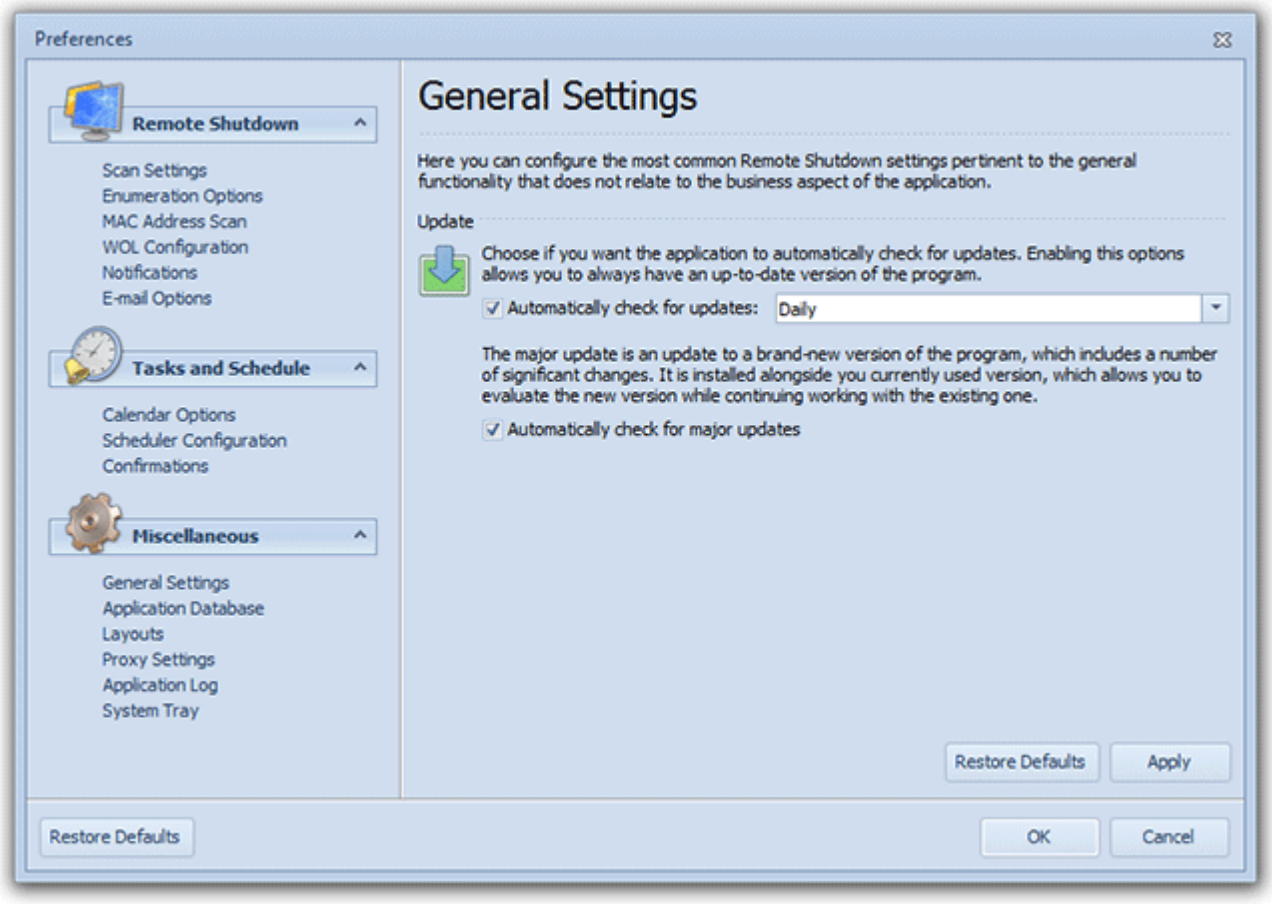
## General Settings

Remote Shutdown can automatically check for updates for you to always have the latest version of the program. You can configure this feature from the **General Settings** preference page. To open this page, click the **Preferences** button from the **Application Menu** and select the **General Settings** link in the navigation bar on the left in the **Preferences** dialog within the **Miscellaneous** group. Pic 1


Preferences
Remote Shutdown
Scan Settings
Enumeration Options
MAC Address Scan
WOL Configuration
Notifications
E-mail Options
Tasks and Schedule
Calendar Options
Scheduler Configuration
Confirmations
Miscellaneous
General Settings
Application Database
Layouts
Proxy Settings
Application Log
System Tray
General Settings
Here you can configure the most common Remote Shutdown settings pertinent to the general functionality that does not relate to the business aspect of the application.
Update
Choose if you want the application to automatically check for updates. Enabling this options allows you to always have an up-to-date version of the program.
Automatically check for updates:
Daily
The major update is an update to a brand-new version of the program, which includes a number of significant changes. It is installed alongside you currently used version, which allows you to evaluate the new version while continuing working with the existing one.
Automatically check for major updates
Restore Defaults
Apply
Restore Defaults
OK
Cancel

**Pic 1. Configuring general settings**

Remote Shutdown can check for updates automatically every day or once a week. To enable an automatic checking for updates, check the **Automatically check for updates** option and choose the checking frequency between **Daily** and **Weekly**. You can also define if the application should check for major updates by changing the **Automatically check for major updates** option value.

If you use a proxy server to connect to the Internet and the required proxy settings are not provided, an automatic check for updates will not take place.

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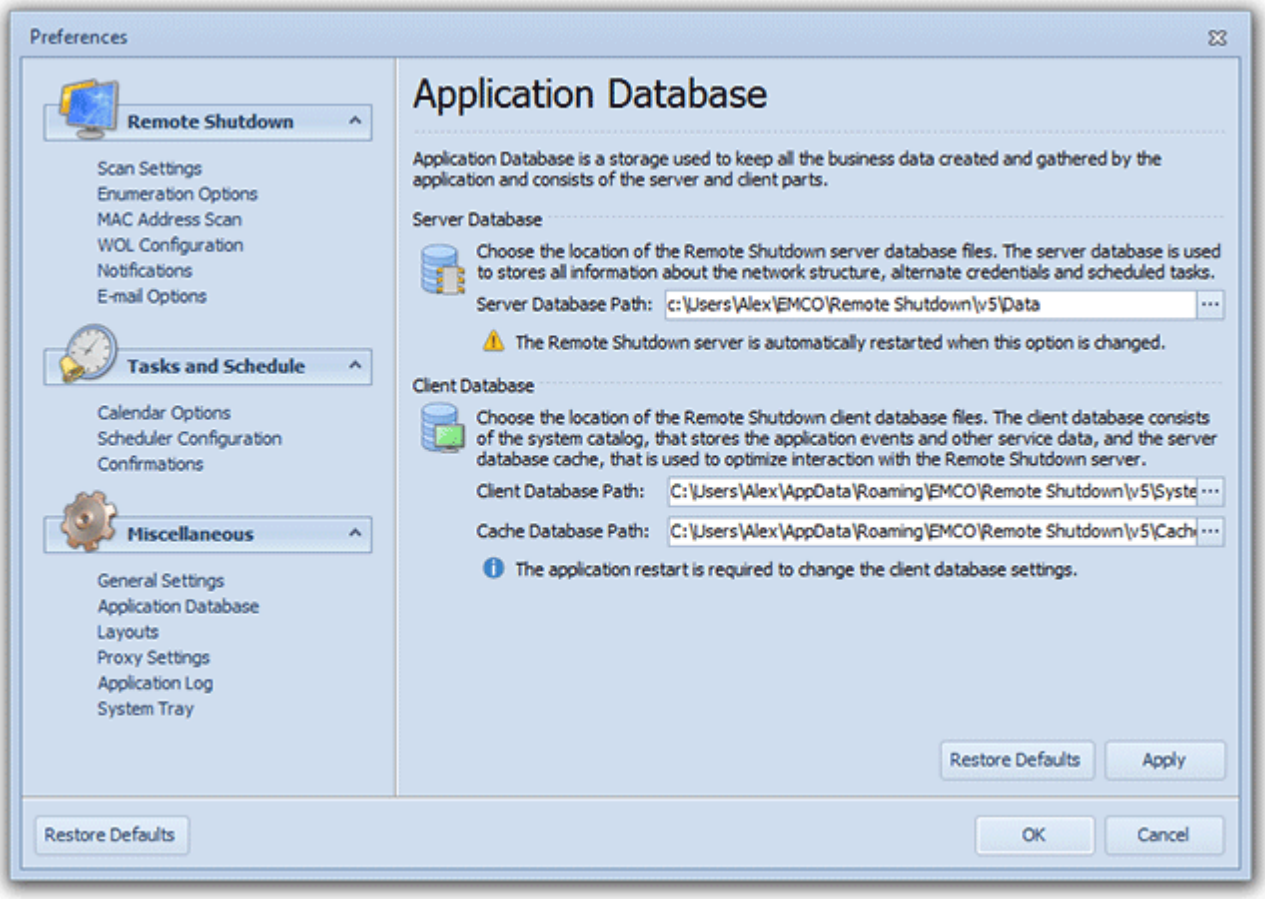
## Application Database

Application Database is a storage used by Remote Shutdown to keep all the business data created and gathered by the application and consists of the server and client parts. You can change the location of both client and server databases on the **Application Database** preference page. Pic 1 To access this page, click the **Preferences** button from the **Application Menu** and select the corresponding link in the navigation bar on the left of the **Preferences** dialog within the **Miscellaneous** group.


Preferences
Remote Shutdown
Scan Settings
Enumeration Options
MAC Address Scan
WOL Configuration
Notifications
E-mail Options
Tasks and Schedule
Calendar Options
Scheduler Configuration
Confirmations
Miscellaneous
General Settings
Application Database
Layouts
Proxy Settings
Application Log
System Tray
Application Database
Application Database is a storage used to keep all the business data created and gathered by the application and consists of the server and client parts.
Server Database
Choose the location of the Remote Shutdown server database files. The server database is used to stores all information about the network structure, alternate credentials and scheduled tasks.
Server Database Path: c:\Users\Alex\EMCO\Remote Shutdown\v5\Data
The Remote Shutdown server is automatically restarted when this option is changed.
Client Database
Choose the location of the Remote Shutdown client database files. The client database consists of the system catalog, that stores the application events and other service data, and the server database cache, that is used to optimize interaction with the Remote Shutdown server.
Client Database Path: C:\Users\Alex\AppData\Roaming\EMCO\Remote Shutdown\v5\Syste
Cache Database Path: C:\Users\Alex\AppData\Roaming\EMCO\Remote Shutdown\v5\Cach
The application restart is required to change the client database settings.
Restore Defaults
Apply
Restore Defaults
OK
Cancel

**Pic 1. Configuring the databases location**

The server database is used to stores all information about the network structure, alternate credentials and scheduled tasks. It is used by the server part of the application to execute the scheduled tasks when there is not currently active user session or Remote Shutdown user interface is closed. The location of the sever database is specified within the **Server Database Path** field.

The client database consists of the system catalog, that stores the application events and other service data, and the server database cache, that is used to optimize interaction with the Remote Shutdown server. The client databases location should be provided to the **Client Database Path** and **Cache Database Path** fields.

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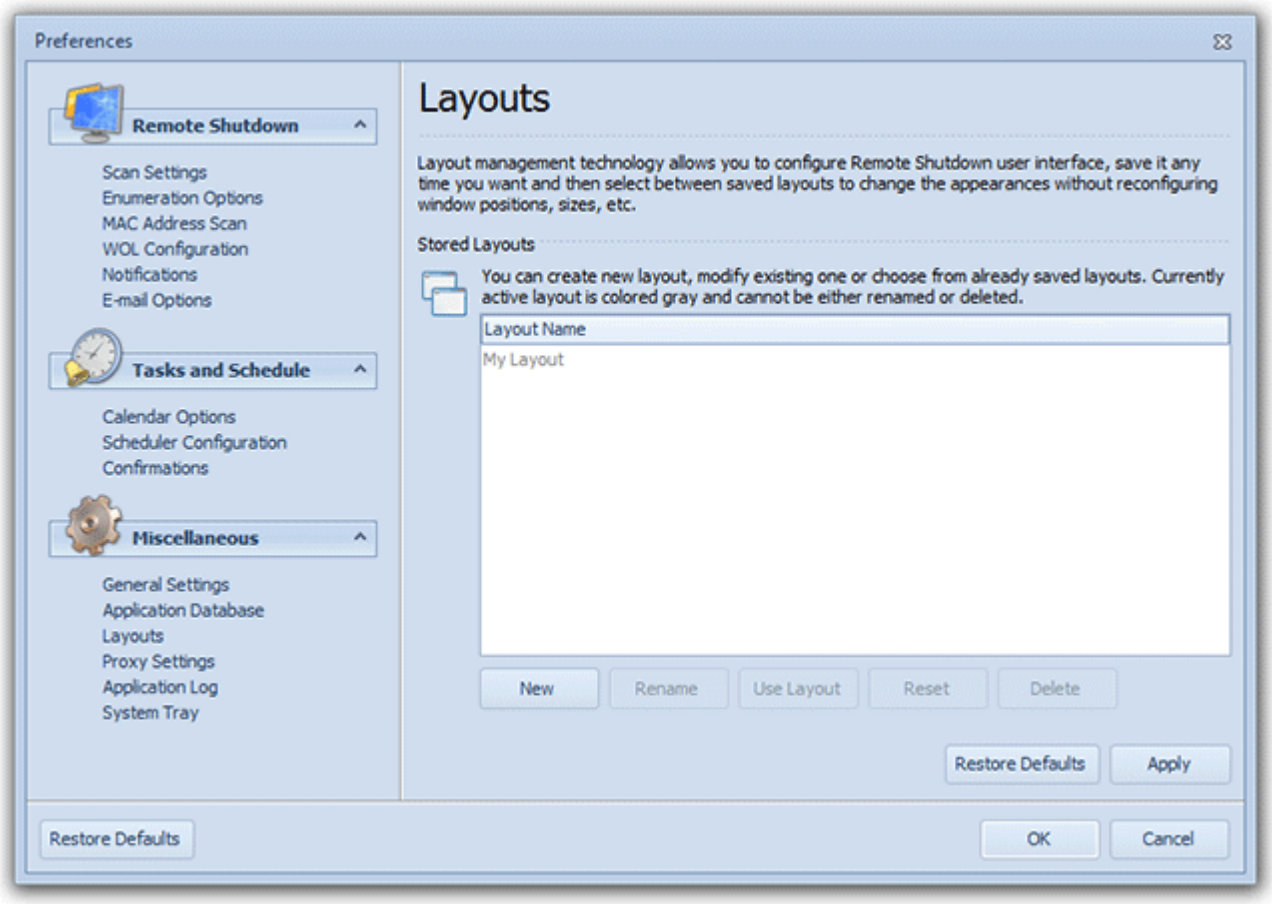
## Layouts

Layout management technology allows you to configure Remote Shutdown user interface, save it any time you want and then select between saved layouts to change the appearance without reconfiguring windows positions, sizes, etc.

The **Layouts** preference page Pic 1 is designed to help you with windows layout management. To access this page click **Preferences** button from the **Application Menu** and select the appropriate link in the navigation bar on the left of the **Preferences** dialog.




**Pic 1. Managing Layouts**

On the **Layouts** preference page Pic 1 you can create new layout, modify existing one or choose from already saved layouts. Currently active layout is colored gray and cannot be either renamed or deleted.

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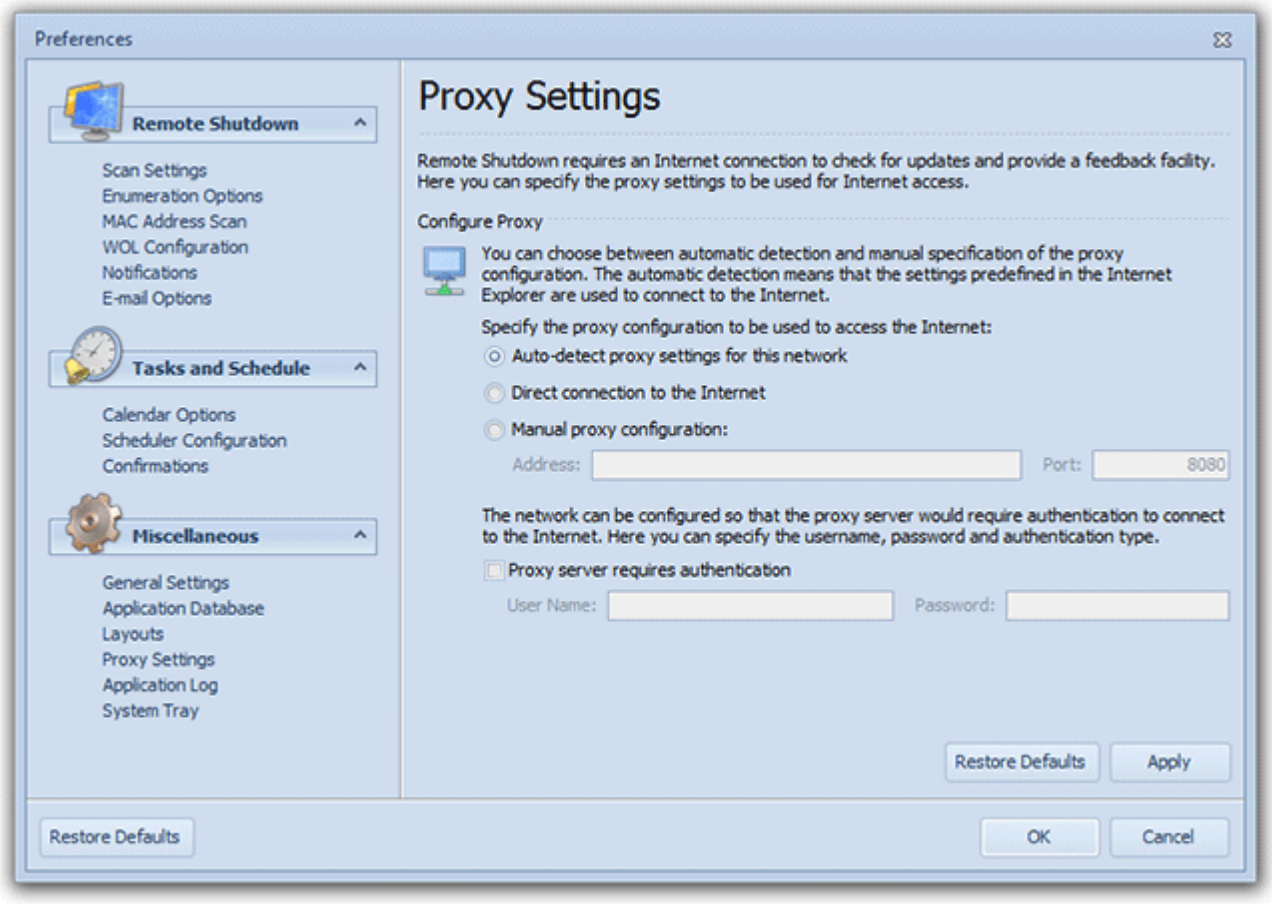
## Proxy Settings

Remote Shutdown requires an Internet connection to support the **Live Update**. Therefore, if a proxy server has to be used to connect to the Internet, it should be configured on the **Proxy Settings** preference page. Pic 1 To access this page, click the **Preferences** button from the **Application Menu** and select the appropriate link in the navigation bar on the left in the **Preferences** dialog within the **Miscellaneous** group.


Preferences
Remote Shutdown
Scan Settings
Enumeration Options
MAC Address Scan
WOL Configuration
Notifications
E-mail Options
Tasks and Schedule
Calendar Options
Scheduler Configuration
Confirmations
Miscellaneous
General Settings
Application Database
Layouts
Proxy Settings
Application Log
System Tray
Proxy Settings
Remote Shutdown requires an Internet connection to check for updates and provide a feedback facility. Here you can specify the proxy settings to be used for Internet access.
Configure Proxy
You can choose between automatic detection and manual specification of the proxy configuration. The automatic detection means that the settings predefined in the Internet Explorer are used to connect to the Internet.
Specify the proxy configuration to be used to access the Internet:
Auto-detect proxy settings for this network
Direct connection to the Internet
Manual proxy configuration:
Address:
Port:
8080
The network can be configured so that the proxy server would require authentication to connect to the Internet. Here you can specify the username, password and authentication type.
Proxy server requires authentication
User Name:
Password:
Restore Defaults
Apply
Restore Defaults
OK
Cancel

Pic 1. Proxy Settings

On this page Pic 1, you may choose among three variants of the proxy configuration to be used by the application. If **Auto-detect proxy settings for this network** is chosen, the application uses the settings predefined in the Internet Explorer. If Remote Shutdown does not have to use a proxy server to connect to the Internet, the **Direct connection to the Internet** option should be chosen. The **Manual proxy configuration** option allows you to provide the proxy server address and port manually.

Both for the automatic detection and manual configuration, it is possible to specify if the proxy server requires authentication and what credentials should be used to connect to the proxy server.

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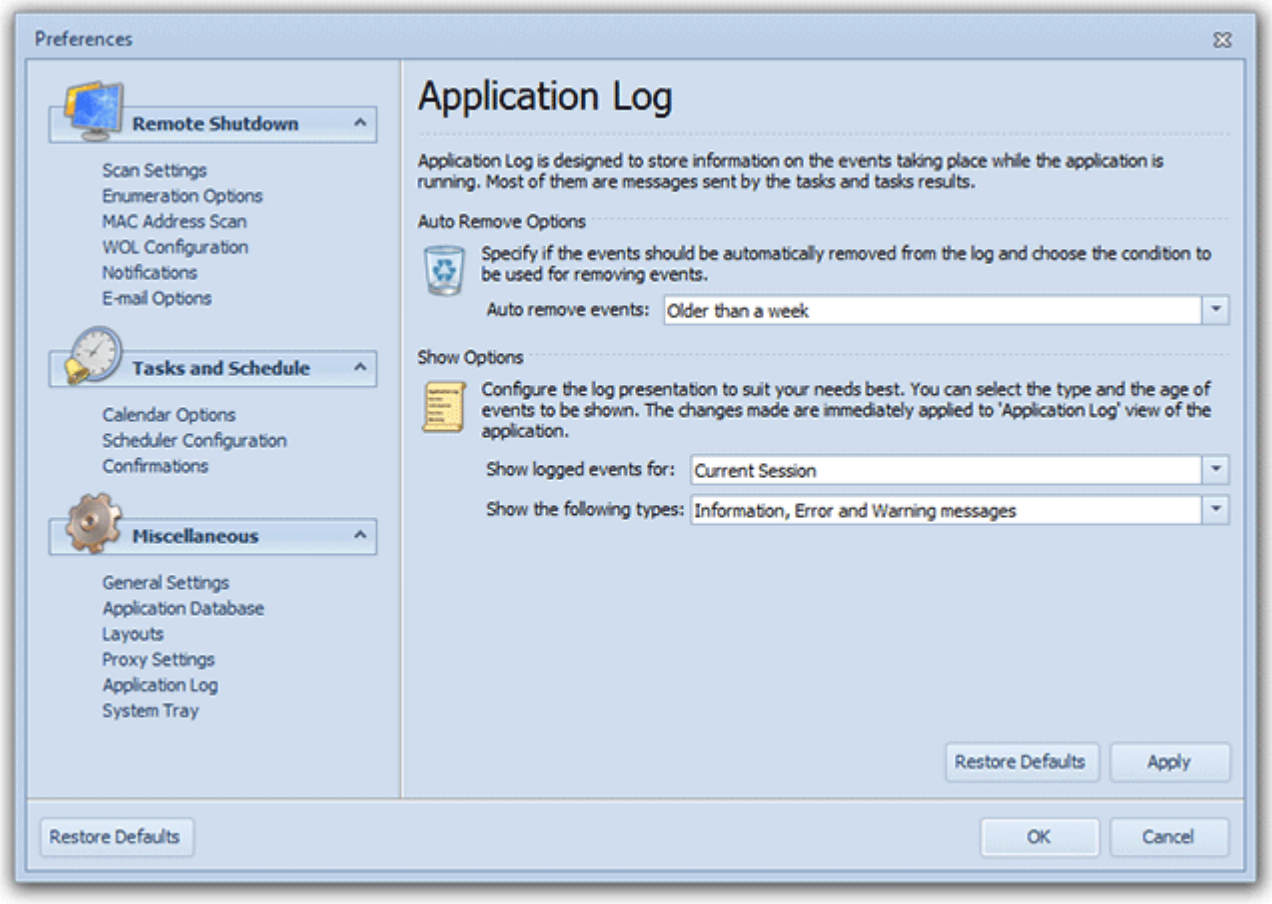
## Application Log

To configure the **Application Log** behavior, click the **Preferences** button from the **Application Menu** and switch to the **Application Log** preference page using the appropriate link in the navigation bar on the left in the **Preferences** dialog within the **Miscellaneous** group. Here, you can specify both storing and viewing options to make your work with the **Application Log** as comfortable as possible. Pic 1


Preferences
Remote Shutdown
Scan Settings
Enumeration Options
MAC Address Scan
WOL Configuration
Notifications
E-mail Options
Tasks and Schedule
Calendar Options
Scheduler Configuration
Confirmations
Miscellaneous
General Settings
Application Database
Layouts
Proxy Settings
Application Log
System Tray
Application Log
Application Log is designed to store information on the events taking place while the application is running. Most of them are messages sent by the tasks and tasks results.
Auto Remove Options
Specify if the events should be automatically removed from the log and choose the condition to be used for removing events.
Auto remove events:
Older than a week
Show Options
Configure the log presentation to suit your needs best. You can select the type and the age of events to be shown. The changes made are immediately applied to 'Application Log' view of the application.
Show logged events for:
Current Session
Show the following types:
Information, Error and Warning messages
Restore Defaults
Apply
Restore Defaults
OK
Cancel

**Pic 1. The Application Log configuration**

Remote Shutdown gives you an option of an automatical removal of logged events from its database. The maximum event age can be specified by the **Auto remove events** option. Choose **Do not remove events** if you do not want any events to be removed automatically. Anyway, it is always possible to remove logged events by clearing log manually.

The **Show Options** are designed to help you configure the log representation to best fit your needs. These options specify the maximum age and types of the logged events to be shown.

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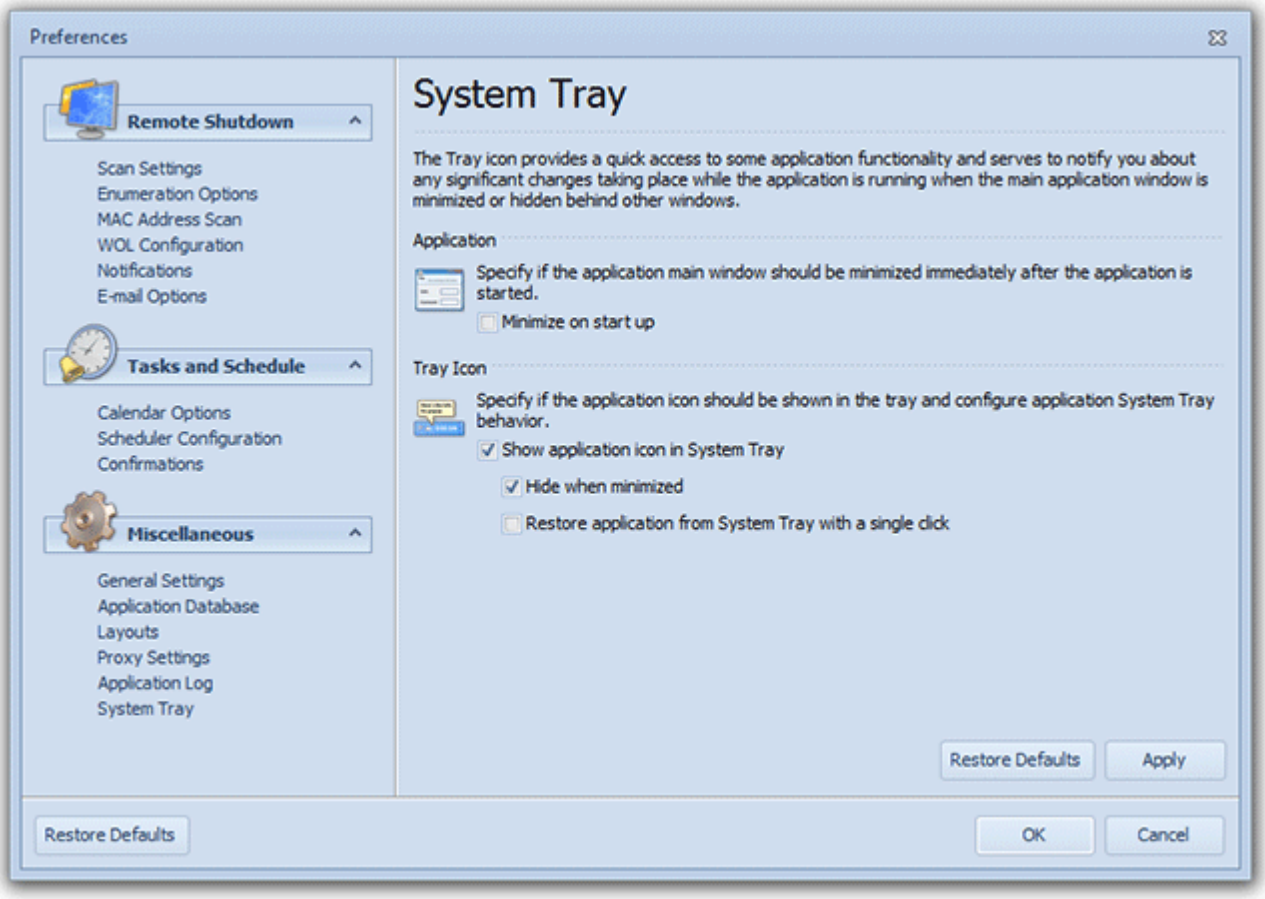
## System Tray

The Tray icon provides a quick access to some of the application functionality and serves to notify you of any significant changes taking place while the application is running when the main application window is minimized or hidden behind other windows. To configure the application behavior regarding the System Tray, click the **Preferences** button from the **Application Menu** and switch to the **System Tray** preference page using the corresponding link on the navigation bar to the left in the **Preferences** dialog within the **Miscellaneous** group. Pic 1


Preferences
Remote Shutdown
Scan Settings
Enumeration Options
MAC Address Scan
WOL Configuration
Notifications
E-mail Options
Tasks and Schedule
Calendar Options
Scheduler Configuration
Confirmations
Miscellaneous
General Settings
Application Database
Layouts
Proxy Settings
Application Log
System Tray
System Tray
The Tray icon provides a quick access to some application functionality and serves to notify you about any significant changes taking place while the application is running when the main application window is minimized or hidden behind other windows.
Application
Specify if the application main window should be minimized immediately after the application is started.
Minimize on start up
Tray Icon
Specify if the application icon should be shown in the tray and configure application System Tray behavior.
Show application icon in System Tray
Hide when minimized
Restore application from System Tray with a single click
Restore Defaults
Apply
Restore Defaults
OK
Cancel

**Pic 1. Configuring the System Tray behavior**

If you prefer the application main window to be minimized during the application start, you should check the **Minimize on startup** option.

The **Show application icon in System Tray** option allows you to choose if the application icon should be shown in the tray. If it is enabled, you may also specify if the application should be hidden from the Windows taskbar when it is minimized to System Tray, and if the main window should be restored from the tray with a single or double click.

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# Chapter 11: Graphical User Interface features

EMCO Software provides you with a modern and intuitive graphical user interface, because we appreciate the users of our products and would like them to feel glad that they have EMCO products installed on their PCs. Lots of resources were involved in creating this kind of an interface for you, and now we are proud we have done it. Custom DPI settings are fully supported, so that you can use EMCO products on any monitor with any resolution you like. The 'Microsoft User Interface Guidelines on Layout, Icons and Sizing' have been a powerful base for this work, and we are glad to tell you that they are fully complied with and supported. With the help of the skinning support and the Ribbon UI interface, every customer can configure the application UI to feel comfortable during each working day.

This chapter gives you a detailed description of how to fully enjoy the graphical user interface features, the skinning mechanism and the Ribbon bar features.

## What's inside

Skinning
Ribbon
UI Elements' main features

## Skinning

Remote Shutdown provides you with a wide range of custom skins with unique look and feel, so that you can choose any skin you like most. If you are a fan of the Microsoft Office interface, you have no reason to complain either, since Remote Shutdown also gives you an option of choosing this type of skin colored blue, black or silver. There are not only formal skins but also some informal ones.

All the skins can be divided into six groups: Office 2010 skins, Base skins, Office 2007 skins, Custom Design skins, Extra skins and Skins for Fun. The following skins are available:

**Office 2010 skins:** "Office 2010 Blue", "Office 2010 Silver", "Office 2010 Black".

**Office 2007 skins:** "Office 2007 Blue", "Office 2007 Silver", "Office 2007 Black", "Office 2007 Green", "Office 2007 Pink".

**Custom design skins:** "Blue", "Black", "Silver", "Lilian", "Caramel", "iMaginary", "Money Twins".

**Bonus skins:** "Seven", "Darkroom", "Foggy", "Liquid Sky", "London Liquid Sky", "Glass Oceans", "Stardust", "McSkin", "Coffee".

**Skins for Fun:** "Xmas 2008 Blue", "Valentine", "Summer 2008", "Springtime".

Let us take a brief look at some of the skins:

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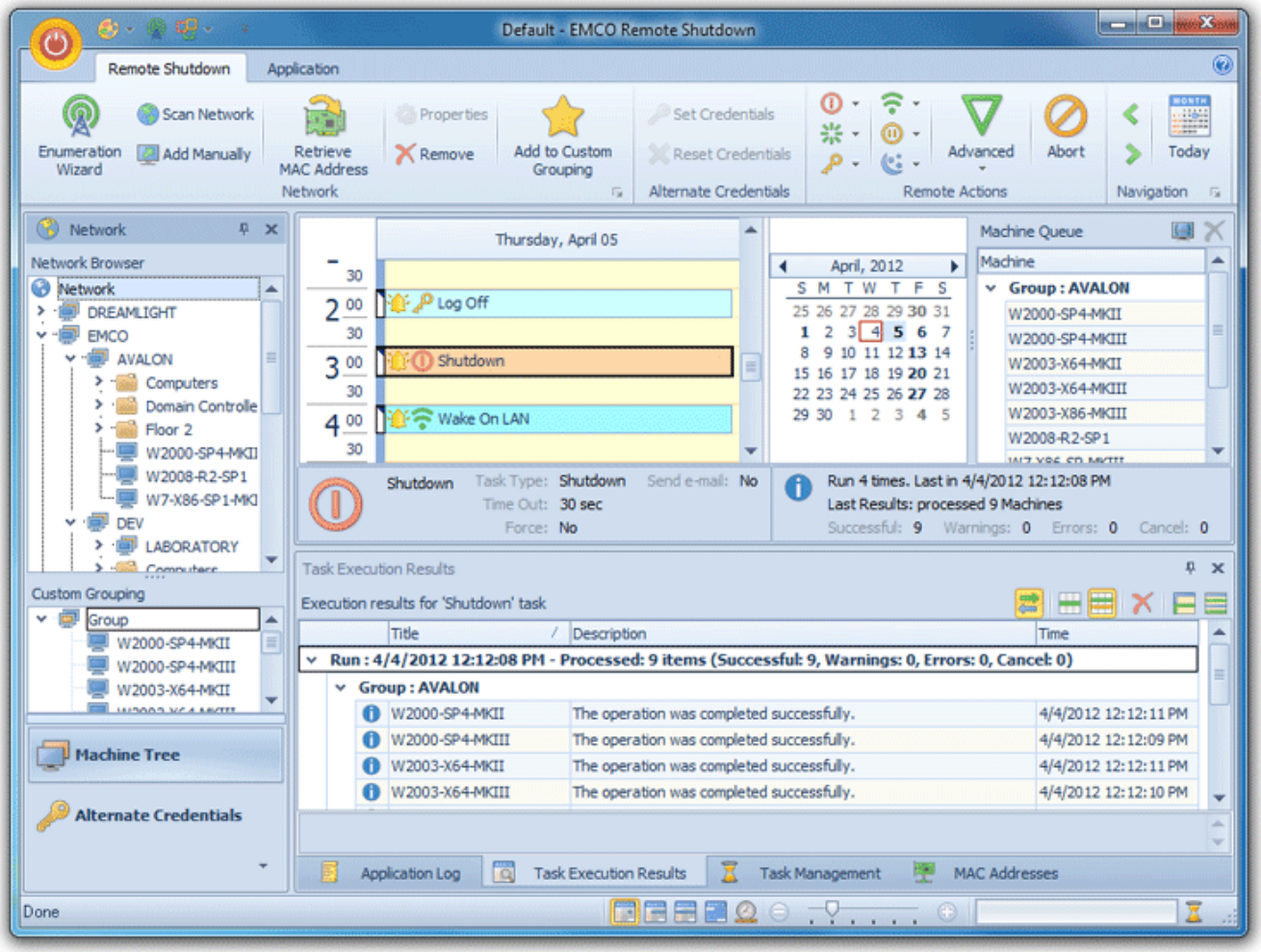
## Office 2010 Skin look and feel example

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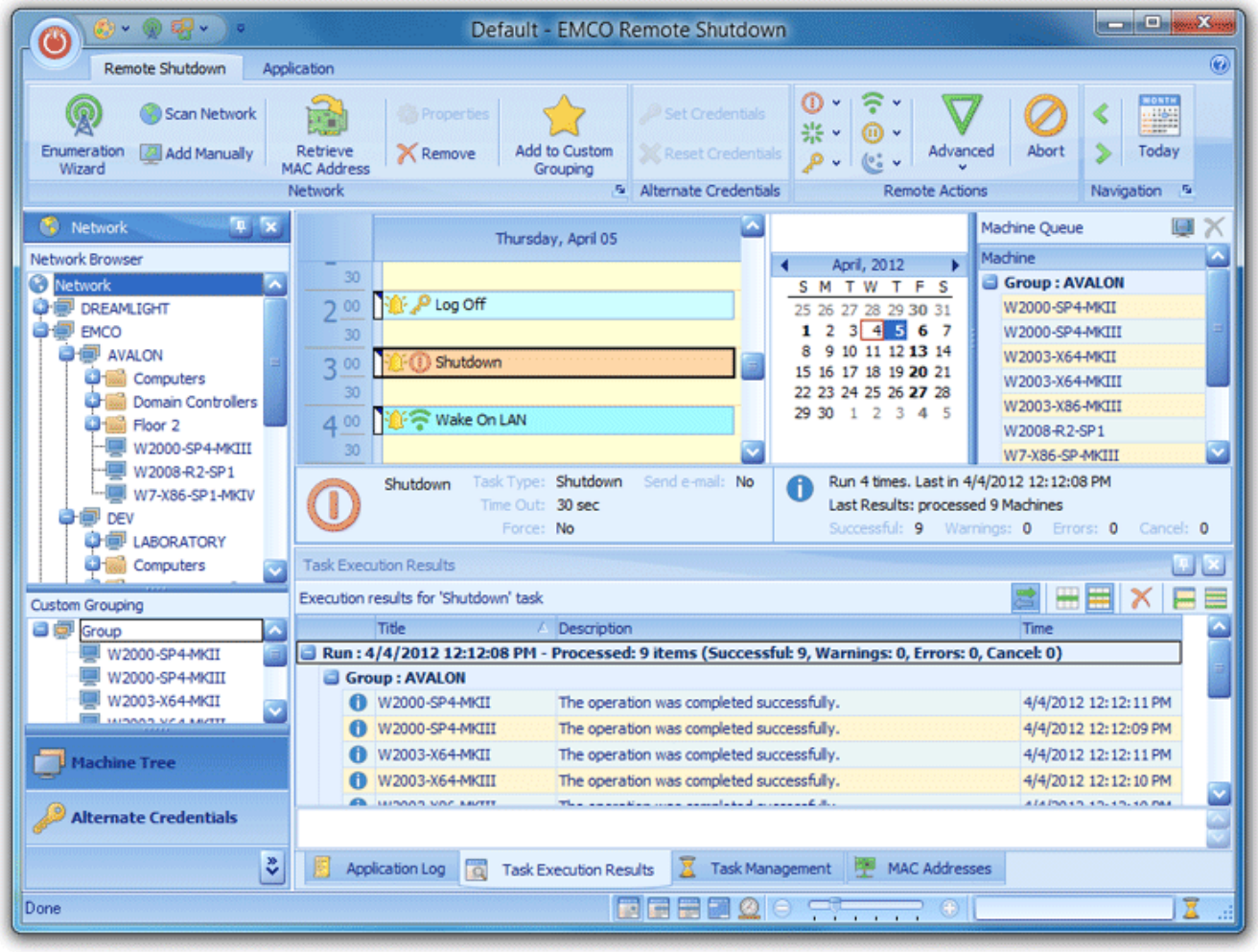
## Custom Design Skin look and feel example

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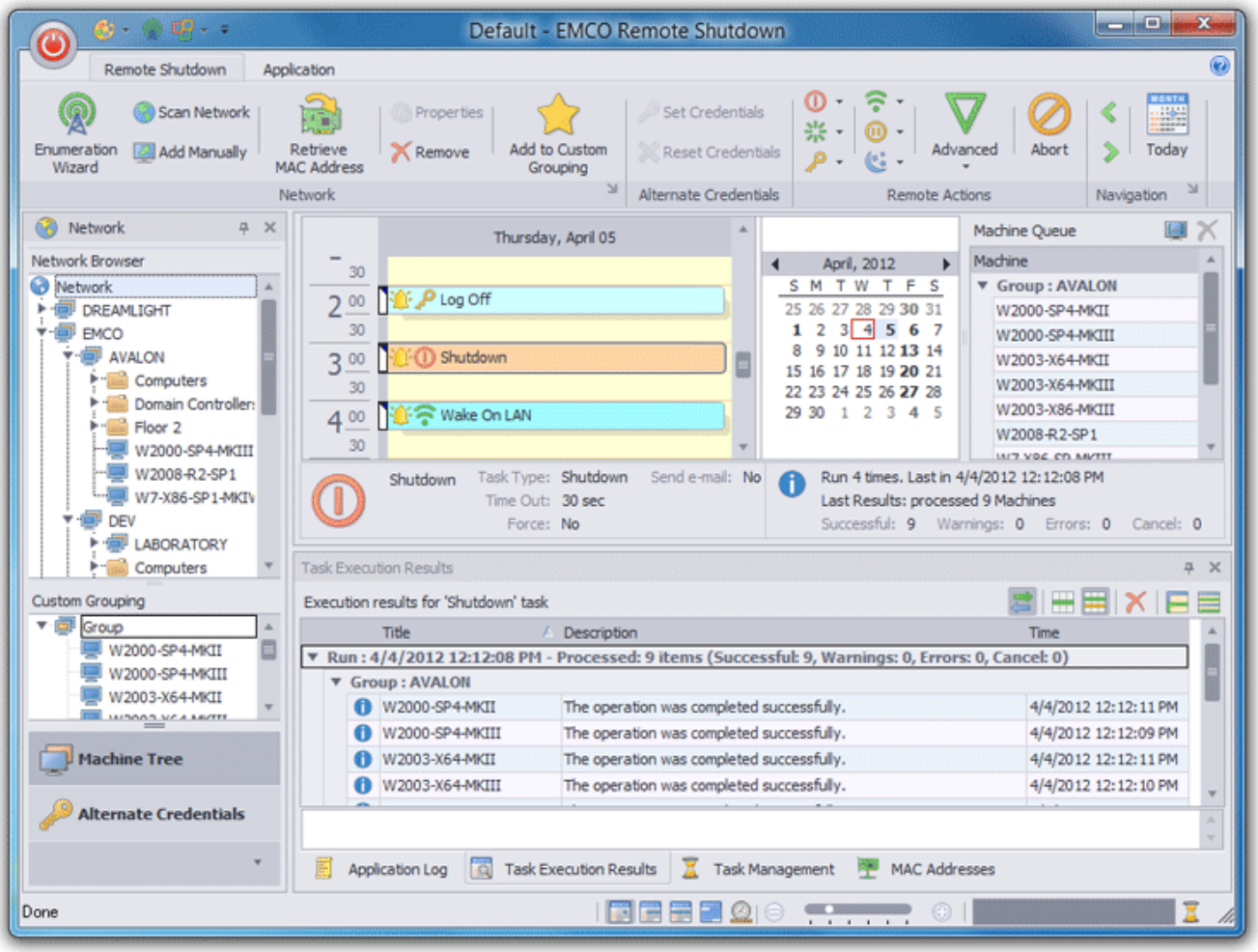
## Extra skins look and feel example

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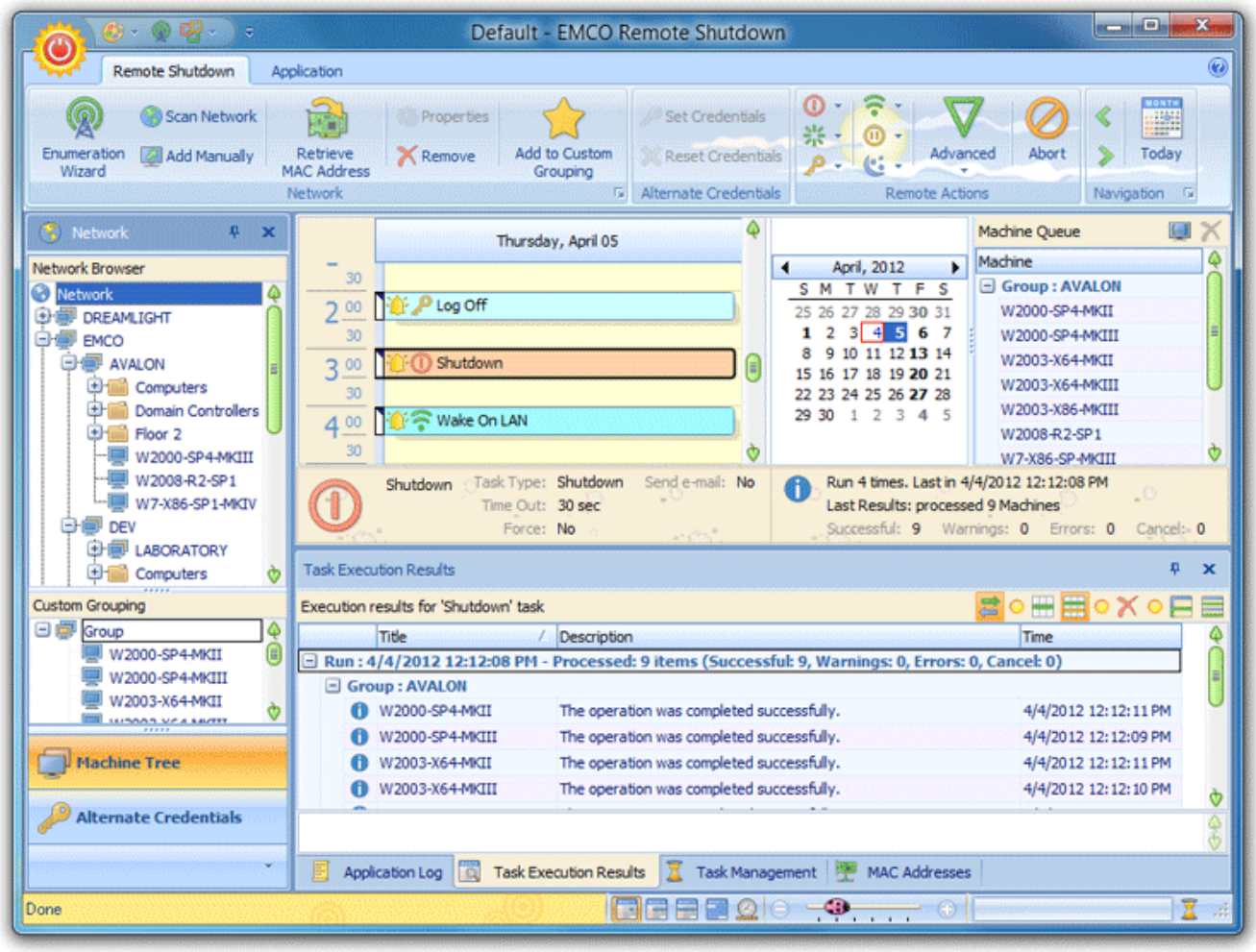
Skins for Fun look and feel example




## Ribbon

Ribbon is a tool that presents commands organized into a set of tabs. The tabs on the Ribbon represent commands that are most relevant for each of the task areas in the application. For example, in Office Word the tabs group commands by activities such as inserting objects like pictures and tables, doing page layout, working with preferences, doing mailings, and reviewing. The Home tab provides an easy access to the most frequently used commands. Office Excel has a similar set of tabs that make sense for spreadsheet work including tabs for working with formulas, managing data, and reviewing. Those tabs simplify access to the application features, because they organize the commands in a way that reflects the tasks people perform in those applications. We are delighted to let you know that we fully conform with Microsoft® Ribbons Guidelines and would like to introduce some Ribbon features to you. To learn more about Ribbon, the story of its development and its usability features, you may visit 'The Story of the Ribbon' article from the MSDN blogs.

### Application Menu

The **Application Menu** invoked using the Application button Pic 1 is somewhat similar to the File menu in most applications that use a classic user interface, but it gives you more.

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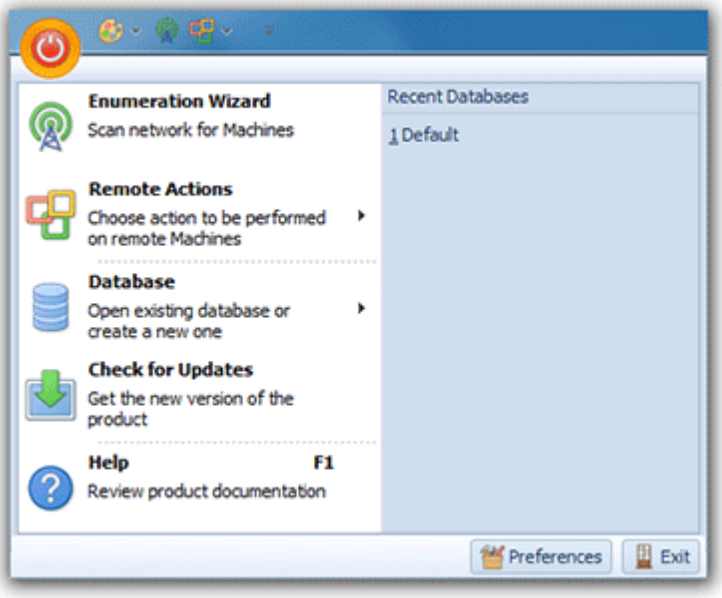



Pic 1. Application Menu

It contains links to the most helpful actions located under different tabs but made available from one access point.

## Quick Access Toolbar

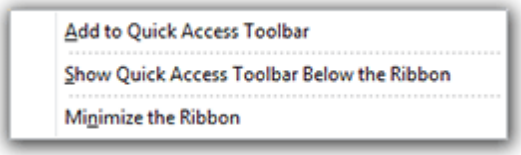
The **Quick Access Toolbar** Pic 2 is an end-user customizable bar located near the Application Menu or below the Ribbon bar depending on the configuration. It can contain links to both Ribbon items and Ribbon groups.

Pic 2. Quick Access Toolbar

To add an action link to the quick access toolbar, right click this action and select **Add to Quick Access Toolbar** from the pop-up menu. The groups can be added in the same way, the only difference being that to add a group you should right click its caption.

## Representation and Navigation Features

The representation of the Ribbon bar can also be configured to make your work more comfortable. You can minimize Ribbon so that the tab's content is only shown when the tab is clicked on, thus extending the application workspace. Also, if it is not convenient for you to have the **Quick Access Toolbar** next to the Application Menu, you may place it below the Ribbon bar, so that it will look just like a simple toolbar. This configuration can be accessed from the pop-up menu of the Ribbon bar. Pic 3




Pic 3. The Ribbon customization menu

Navigation between the Ribbon tabs can be performed not only with a mouse click on a tab but also with the help of the mouse wheel. Just place the cursor over any tab and scroll the wheel – scrolling up will switch the tabs from left to right, and scrolling down will switch the tabs in the opposite direction.

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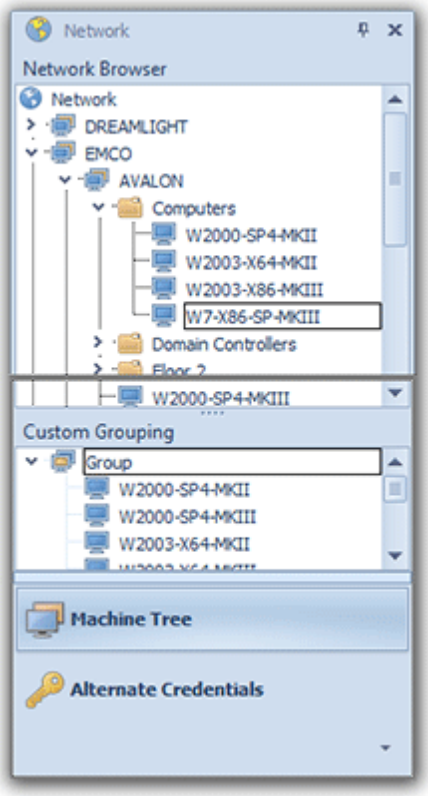
# UI Elements' main features

The graphics shell used for Remote Shutdown is aimed at providing a high level of usability to everyone. This topic covers main features of the graphical elements used in this application, and here you can find what puts EMCO GUI a step ahead of the others.

## Docking

The Remote Shutdown user interface is built using the ultimate docking technology which provides for the maximum use of the application working area. It allows docking the windows that are used less often than the main one to the sides, auto hide them or even close and then open again when required. The dock panels can be docked both to the main window and to each other, thus enabling you to built such a subsidiary window layout that makes you feel comfortable while working with Remote Shutdown. Pic 1




Pic 1. Docking technology preview

To change the position of any dock window, you should click its header and move the mouse pointer while holding the left mouse button down. Blue hint windows are shown to help you understand where you can drop the window dragged. When you are dragging it over another dock window, it is possible to dock both windows to each other or display them in different tabs of the same dock window.

To enable the auto hide feature for a window, click the pin button in the dock window header. Clicking the cross button results in closing of the dock window. Each view can also be closed and opened again using the checkboxes in the **Show/Hide** Ribbon group accessible from the **Application** page.

## Grouping and Filtering Data

The Remote Shutdown user interface is designed so as to make its usage as flexible as possible. The tables available in every EMCO product provide you with an easy-to-use data filtration and grouping mechanism. To group data by one of the columns, you should drag its header to the grouping box displayed over the table. Pic 2

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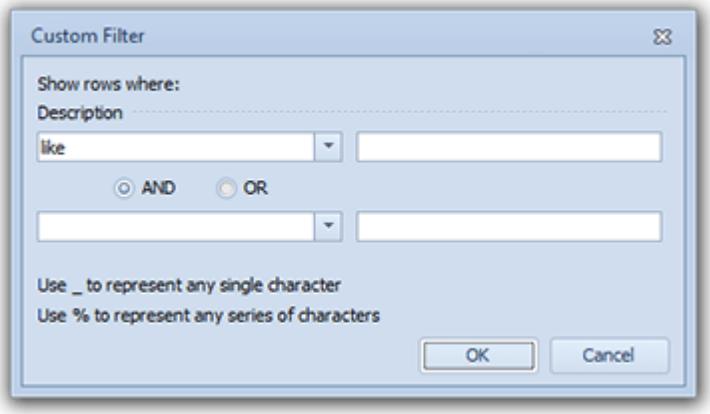
Pic 2. The grouping box of a table grouped by two columns

To group or ungroup data by any column when **Group By Box** Pic 2 is not visible, you can have it displayed by selecting the **Show Group By Box** item from the pop-up menu of any column header.

Data filtration can be performed in two ways: by using the quick filter or the filter editor. Pic 3 The **Filter Editor** shipped with Remote Shutdown is easy to use and allows you to build your own complex filters quickly and easily.

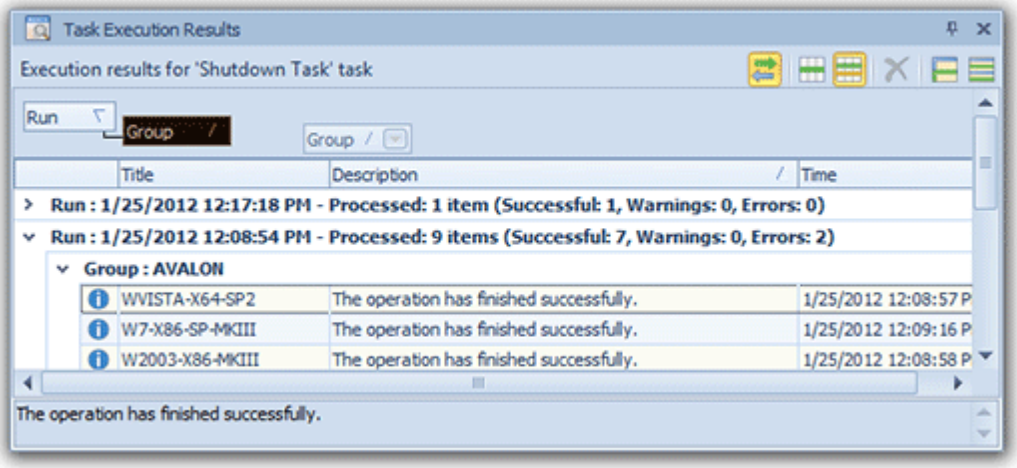



Pic 3. Using the custom filter editor

To use the quick filter feature, just click on the glyph in the right top corner of any column header. A drop-down menu appears offering you to choose one of the predefined filters or select the custom one from the filtering dialog. The custom filter is edited by means of the **Filter Editor** item from the column's pop-up menu.

## Managing Columns in Trees and Tables

You can customize almost every table and tree in EMCO products by moving and removing columns to make the control most informative for you. To move a column, drag it over the control's header and drop between other columns to its new position. Pic 4




Pic 4. Moving a column

To remove a column that is of no use for you, right click the control's header and select the **Remove This Column** item from the pop-up menu. Also, you can control columns availability using the column chooser. Pic 5

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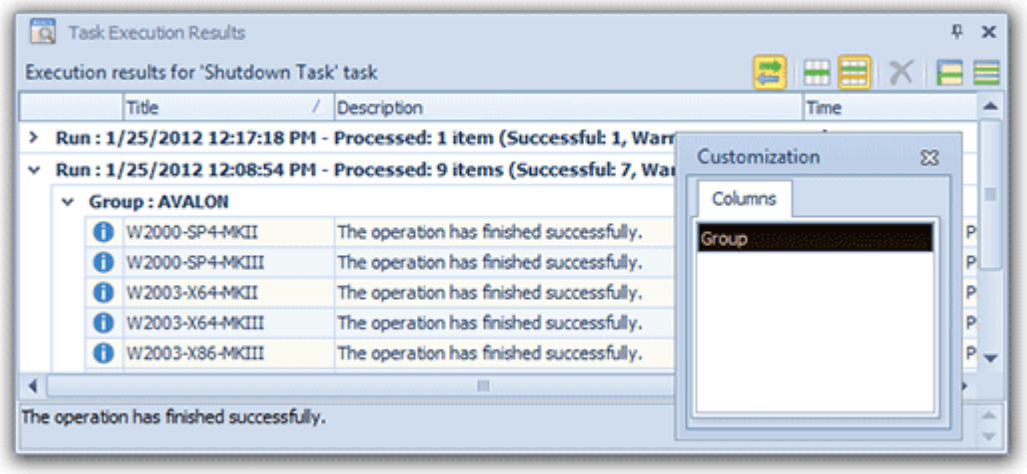
Task Execution Results
Execution results for 'Shutdown Task' task
Title
Description
Time
Run : 1/25/2012 12:17:18 PM - Processed: 1 item (Successful: 1, War
Run : 1/25/2012 12:08:54 PM - Processed: 9 items (Successful: 7, Wa
Group : AVALON
W2000-SP4-MKII The operation has finished successfully.
W2000-SP4-MKIII The operation has finished successfully.
W2003-X64-MKII The operation has finished successfully.
W2003-X64-MKIII The operation has finished successfully.
W2003-X86-MKIII The operation has finished successfully.
The operation has finished successfully.
Customization
Columns
Group

Pic 5. Using the column chooser

To show the column chooser, right click the control's header and select the **Column Chooser** menu item. After that, you can drag and drop columns from the header to the column chooser and backwards.

## Automatic Saving and Restoring of Windows Layout

One of the service functions of Remote Shutdown user interface is its ability to save and restore the windows layout. All the changeable parameters like the windows sizes and positions; the table columns order, sizes and positions; the grouping and filtering options; the dock windows configuration, etc. are saved between sessions. Thus, you do not need to configure the application's user interface layout every time you start this application.

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# Chapter 12: Evaluation of the Product

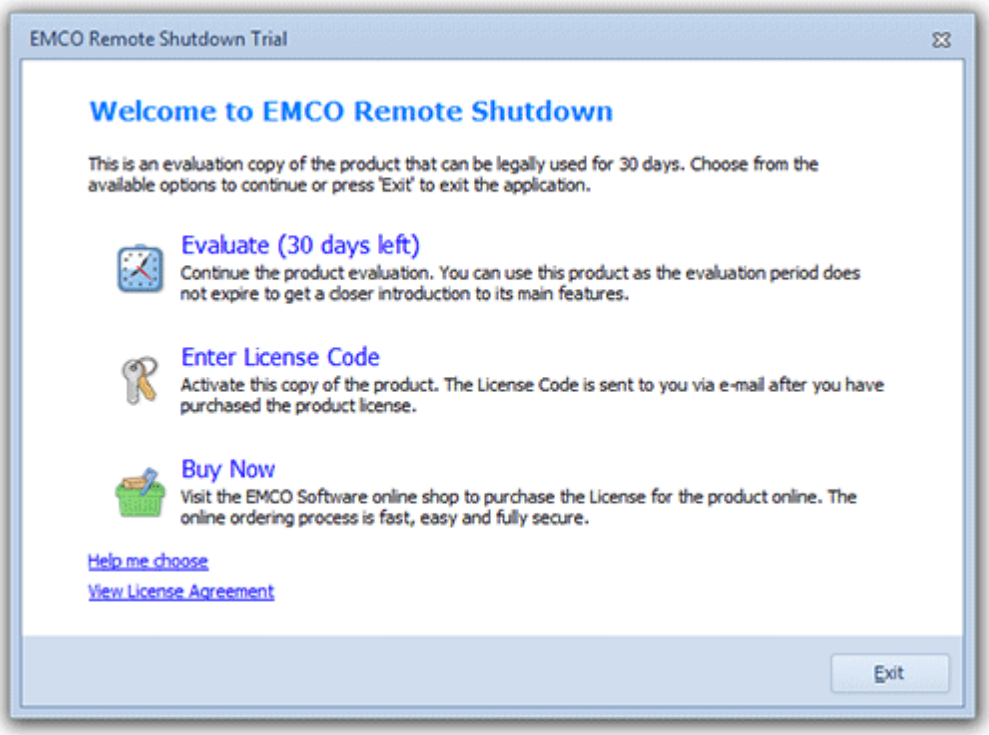
EMCO Remote Shutdown is a shareware product but you can use it as long as the evaluation period does not expire to get a closer introduction to its main features. To activate the product you should enter the License Code EMCO Software provides you with after you have purchased the license for using EMCO Remote Shutdown. This chapter will cover the particularities of the evaluation mode, tell you how and where you can get the license code. Read this chapter carefully to face no difficulties during the EMCO Remote Shutdown evaluation.

## What's inside

Evaluation Wizard
Where can I get my License Code?

## Evaluation Wizard

As long as the EMCO Remote Shutdown is not activated on each application startup the **Evaluation Wizard** Pic 1 is displayed on the screen, showing you the information about the evaluation process and providing with quick links for the product activation, purchase and extended evaluation request.


EMCO Remote Shutdown Trial
Welcome to EMCO Remote Shutdown
This is an evaluation copy of the product that can be legally used for 30 days. Choose from the available options to continue or press 'Exit' to exit the application.
Evaluate (30 days left)
Continue the product evaluation. You can use this product as the evaluation period does not expire to get a closer introduction to its main features.
Enter License Code
Activate this copy of the product. The License Code is sent to you via e-mail after you have purchased the product license.
Buy Now
Visit the EMCO Software online shop to purchase the License for the product online. The online ordering process is fast, easy and fully secure.
Help me choose
View License Agreement
Exit

**Pic 1. The EMCO Remote Shutdown Evaluation Wizard welcome page**

The welcome page of the **Evaluation Wizard** allows you to choose between three options to continue. Those are **Evaluate**, **Enter License Code**, **Request extended evaluation** and **Buy now** . Optionally you can press **Exit** button to close the application. In this section we will help you to choose the option that will best fit your needs.

The **Evaluate** option shows you the time left until the evaluation period expires. You should choose this option to continue the evaluation process – the wizard will be closed and you can start working with Remote Shutdown. You can use the product as long as the evaluation period does not expire to get a closer introduction to its main features.

It you have already purchased the license for using the EMCO Remote Shutdown you should choose the **Enter License Code** option to activate the product. This options also should be chosen if the extended evaluation request has been approved by EMCO Software and you have been provided with the Extended License. If you are having problems with finding the License Code refer to the Where can I get my License Code? section of this document. After choosing the **Enter License**

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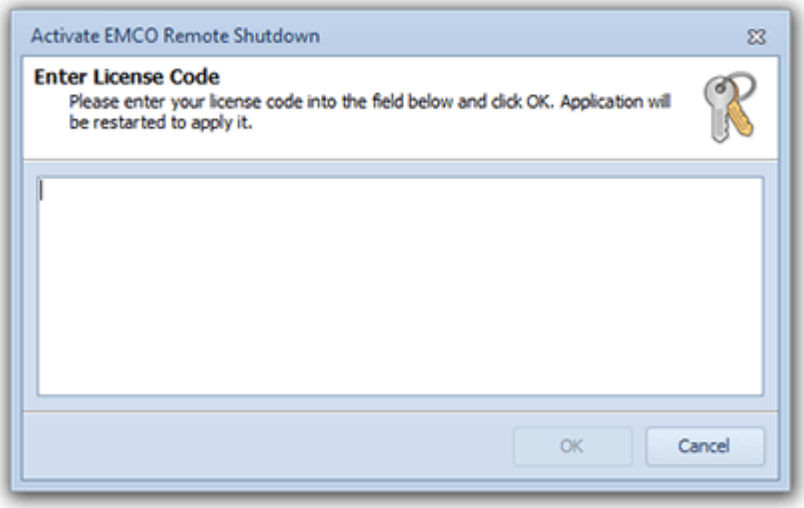
**Code** option the product activation page is displayed on the screen. Pic 2


Activate EMCO Remote Shutdown
Enter License Code
Please enter your license code into the field below and click OK. Application will be restarted to apply it.
OK
Cancel

Pic 2. Activating EMCO Remote Shutdown

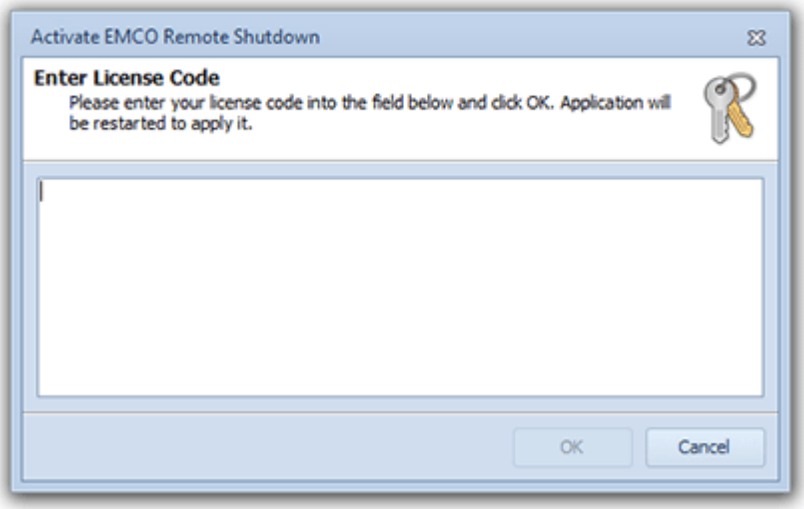
To activate EMCO Remote Shutdown copy and paste the License Code to the input field on this page and press **Activate** - the application will be restarted to activate.

The **Evaluation Wizard** also provides you with the short cut action that allows you to visit EMCO Software web store. To use this feature choose the **Buy Now** option. The on-line ordering process is fast, easy, and fully secure.

## Where can I get my License Code?

After you have purchased the license for using EMCO Remote Shutdown our experts will generate the License Code and send it to you via e-mail to the address you have specified during the purchasing process. You are supposed to receive two e-mail messages – one with the License Code written in the message body and one with the attached text file (license.txt), containing the license. It is your choice to use any message because both License Codes are identical.

To activate the product the License Code received via e-mail should be copied and pasted to the product activation form. Pic 1 This form can be reached using the **Enter License Code** button from the **Information** group on the Ribbon bar or by choosing the appropriate option in the **Evaluation Wizard**.


Activate EMCO Remote Shutdown
Enter License Code
Please enter your license code into the field below and click OK. Application will be restarted to apply it.
OK
Cancel

Pic 1. Activating EMCO Remote Shutdown

To activate Remote Shutdown, copy and paste the License Code to the input field and press **Activate** - the application will be restarted to activate.

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# Chapter 13: Main Application Actions

The main application actions are all gathered on the **Ribbon** bar and are grouped by the functions performed into two pages: **Remote Shutdown** and **Application**. Each page is divided into Ribbon groups. This chapter is to describe the actions available in details and can be used as a glossary while working with Remote Shutdown.

## What's inside

Remote Shutdown Ribbon Page
Application Ribbon Page

## Remote Shutdown Ribbon Page

The **Remote Shutdown** **Ribbon** page contains all the main actions connected to the primary features of Remote Shutdown. This section describes each group and all actions available in it for the **Remote Shutdown** page.

### Network Ribbon Group

The **Network** Ribbon group provides you with a quick access to the actions for managing the **Network Browser** and **Custom Grouping** structures. The glyph of this group opens the **Enumeration Options** preference page.

#### Enumeration Wizard

The **Enumeration Wizard** button from the **Network** Ribbon group should be used to open the **Enumeration Wizard**, which can help you with adding Machines to the **Network Browser** for further processing.

#### Scan Network

The **Scan Network** button from the **Network** Ribbon group should be used to scan your entire network for Machines and add them to the **Network Browser** for further processing.

#### Add Manually

The **Add Manually** button from the **Network** Ribbon group should be used to add Machines to the **Network Browser** for further processing using the criteria specified manually.

#### Retrieve MAC Address

The **Retrieve MAC Address** button from the **Remote Actions** Ribbon group should be used to retrieve the MAC address for the Machines selected in the **Machine Tree** or the **MAC Addresses** pane.

#### Properties

The **Properties** button from the **Network** Ribbon group allows you to review and change properties of the item selected from the **Network Browser** or **Custom Grouping** pane depending on which pane is currently focused on.

#### Remove

The **Remove** button from the **Network** Ribbon group is used to remove the items currently selected in the **Network Browser** or **Custom Grouping** pane depending on which pane is currently focused on.

#### Add to Custom Grouping

The **Add to Custom Grouping** button from the **Network** Ribbon group should be used to create and maintain the **Custom Grouping** structure.

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## Alternate Credentials Ribbon Group

The **Alternate Credentials** Ribbon group should be used for managing the **Alternate Credentials** to be used when connecting to remote Machines.

### Set Credentials

The **Set Credentials** button from the **Alternate Credentials** Ribbon group should be used to define credentials for the item currently selected in the **Alternate Credentials** pane.

### Reset Credentials

The **Reset Credentials** button from the **Alternate Credentials** Ribbon group should be used to remove associated credentials from a selected network resource.

## Remote Actions Ribbon Group

The Remote Actions Ribbon group should be used to perform any kind of available remote action to a scope of Machines or create scheduled tasks to perform any of those actions.

### Shutdown

The Shutdown action allows you to turn off the set of remote Machines, specifying action timeout, if the notification message is shown during the timeout, notification message itself, if the currently logged on user on the remote Machine can abort the shut down process and if the applications should be forced to close.

### Reboot

The Reboot action allows you to reboot the set of remote Machines, specifying action timeout, if the notification message is shown during the timeout, notification message itself, if the currently logged on user on the remote Machine can abort the reboot process and if the applications should be forced to close.

### Log Off

The Log Off action allows you to log off the currently active user account on the set of remote Machines, specifying action timeout, if the notification message is shown during the timeout, notification message itself, if the currently logged on user on the remote Machine can abort the log off process and if the applications should be forced to close.

### Wake On LAN

The Wake On LAN action allows you to turn on the set of remote Machines by sending WOL message.

### Hibernate

The Hibernate action allows you to turn off the set of remote Machines writing RAM content to hard disk, specifying action timeout, if the notification message is shown during the timeout, notification message itself and if the currently logged on user on the remote Machine can abort the hibernate process.

### Sleep

The Sleep action allows you to switch the set of remote Machines to stand-by mode for energy saving, specifying action timeout, if the notification message is shown during the timeout, notification message itself and if the currently logged on user on the remote Machine can abort the sleep process.

### Lock Devices

The Lock Devices action allows you to lock all input devices available from the set of remote Machines, specifying action timeout, if the notification message is shown during the timeout, notification message itself and if the currently logged on user on the remote Machine can abort the lock process.

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**Unlock Devices**

The Unlock Devices action allows you to unlock all input devices being locked on the set of remote Machines.

**Lock Workstation**

The Lock Workstation action allows you to lock the selected remote Machines. Only a user currently logged on a remote Machine or a system administrator is able unlock the Machine.

**Send Message**

The Send Message action allows you to send a message to the selected remote Machines - the message sent will be displayed in a message dialog.

### Navigation Ribbon Group

The actions available from the **Navigation** Ribbon group are designed to help you to navigate quickly within the **Scheduling** area.

**Backwards**

The **Backwards** button from the **Navigation** Ribbon group should be used to navigate backwards in the currently chosen view within the **Scheduling** area.

**Forward**

The **Forward** button from the **Navigation** Ribbon group page should be used to navigate forward in the currently chosen view within the **Scheduling** area.

**Today**

The **Today** button from the **Navigation** Ribbon group enables quick navigating to the current date within the **Scheduling** area.

## Application Ribbon Page

Remote Shutdown comes with a range of additional non-business options that are gathered within the **Application** Ribbon page. In this chapter, we will take a closer look at those functions grouping them the same way they are grouped within the **Ribbon** bar.

### Service Management Ribbon Group

The **Service Management** Ribbon group should be used to connect to the Remote Shutdown Server, disconnect from it, change its state and switch an account used by the service.

**Connect**

The **Connect** button should be used to connect to the Remote Shutdown server application after the client was disconnected. When the client is connected it is replaced with the **Disconnect** button to be used to disconnect from the server.

**Control**

The **Control** button from the **Server Management** group of the **Application** Ribbon page should be used to manage the server application state. You can change an account used by the server application as long as start and stop the server using the sub-menu of this button.

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## Layout Ribbon Group

The **Layout** Ribbon group should be used for a quick switch between saved windows layouts or reset one of them to defaults. Clicking the glyph of this group opens the **Layout** preference page where it is possible to manage stored layouts or create a new one.

### Layout Chooser

The **Layout Chooser** is represented by a drop-down list filled with available window layouts. You can choose one of the existing layouts to apply it or input a name for a new layout to be saved.

### Reset Layout

The **Reset Layout** action saves the currently chosen layout resetting it to the default one.

## Update Ribbon Group

The **Update** Ribbon group is responsible for the Live Update function. The glyph of this group opens the **General Settings** preference page enabling you to configure the auto-update options.

### Check for Updates

The **Check for Updates** button from the **Update** Ribbon group should be used to check for new versions of Remote Shutdown.

## Show Ribbon Group

The **Show** Ribbon group should be used for managing the Remote Shutdown dock views and hiding panels.

### Network

Shows or hides the **Network** view. The **Network** view displays information on the entire pool of remote Machines introduced to Remote Shutdown. It consists of two parts: **Machine Tree** and **Alternate Credentials**. **Machine Tree** stores the Machines found during **Network Scan** along with the created **Custom Grouping** structure. The **Alternate Credentials** part is maintained automatically and should be used for specifying the credentials to be applied to connect to remote Machines.

### All Machines

Shows or hides the **All Machines** view. The **All Machines** view shows the Machines available all over the network.

### Application Log

Shows or hides the **Application Log** view. The **Application Log** view shows information on the events taking place during the application execution. Most of them are operations results.

### Task Management

Shows or hides the **Task Management** view. The **Task Management** view shows detailed progress of each operation currently performed and allows canceling some or all running operations.

### Task Execution Results

Shows or hides the **Task Execution Results** view, which displays the execution results for the tasks available in the **Task and Schedule** view.

### Task Details Pane

Shows or hides the **Task Details Pane**. The **Task Details Pane** displays information on the items selected in the **Schedule** view.

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## Skins Ribbon Group

The **Skins** Ribbon group provides you with an option of quick changing of the application skins.

### Skin Chooser

The **Skin Chooser** is a drop-down button that should be used to select the skin from the available skins to be applied to the application. The currently active skin is the checked one.

## Information Ribbon Group

The **Information** Ribbon group has a range of useful actions to manage licensing issues, get help or information you may require.

### Enter License Code

The **Enter License Code** action should be used to enter the license code you received from EMCO to activate Remote Shutdown.

### Buy Now

The **Buy Now** button is only visible if Remote Shutdown is not activated. It provides you with a quick access to the EMCO web store.

### Contact Support

The **Contact Support** button should be used to get efficient technical assistance from EMCO Software support team.

### EMCO on the Web

The **EMCO on the Web** button provides you with a short-cut to the EMCO website.

### About

It opens the **About** dialog to review the Remote Shutdown information, licensing information and the End-User License Agreement.

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# Chapter 14: Application Log

The **Application Log** is designed to store information on the events taking place during the application execution. The larger part of this information consists of events generated by the tasks and the tasks results. The purpose of this chapter is to help you understand the log.

Application Log
This view contains all tasks results and other application events for: Server
Title
Description
Time
Auto Retrieve MAC Addresses for 'AVALON'
Processed: 10 items (Successful: 10, Warnings: 0, Errors: 0, Cancel: 0)
4/4/2012 11:32:22 AM
Auto Retrieve MAC Addresses for 'EMCO'
Processed: 12 items (Successful: 12, Warnings: 0, Errors: 0, Cancel: 0)
4/4/2012 11:32:21 AM
Auto Retrieve MAC Addresses for 'DEV'
Processed: 9 items (Successful: 9, Warnings: 0, Errors: 0, Cancel: 0)
4/4/2012 11:32:21 AM
Auto Retrieve MAC Addresses for 'DREAMLIGHT'
Processed: 9 items (Successful: 9, Warnings: 0, Errors: 0, Cancel: 0)
4/4/2012 11:32:21 AM
Auto Retrieve MAC Addresses for 'WINTOOLKIT'
Processed: 10 items (Successful: 10, Warnings: 0, Errors: 0, Cancel: 0)
4/4/2012 11:32:21 AM
Auto Retrieve MAC Addresses for 'LABORATORY'
Processed: 8 items (Successful: 8, Warnings: 0, Errors: 0, Cancel: 0)
4/4/2012 11:32:21 AM
Enumerate Network
Processed: 6 items (Successful: 6, Warnings: 0,
4/4/2012 11:32:17 AM
Processed: 10 items (Successful: 10, Warnings: 0, Errors: 0, Cancel: 0)

**Pic 1. The Application Log view**

The **Application Log** view is located by default at the bottom of the Remote Shutdown main window and displays the log in form of a tree and a pane that shows details of a selected event. Pic 1 The description for any logged event is by default wrapped, so that you can easily read it. If you would like to have more events visible at the same time, you can configure the **Application Log** view to display only one line per event by disabling the **Wrap Text** option from the **Configuration** menu, after which a detailed description will only be shown in the event details pane. If you do not need the event details pane and would like to review the events only within the tree, you can hide the event details pane by disabling the **Show Event Details Pane** option from the **Configuration** menu.

Every event in the **Application Log** is assigned a severity level represented by a certain icon. The icon allows you to see if the task has finished successfully without reading the description. The following icons are available:

the blue icon with an 'i' character means that everything is OK;

the brown circle icon with a cross-cut line is used to identify that the task was canceled;

the yellow icon with an exclamation mark is the warning sign: it tells you that some errors have occurred, but they are not critical. In such a case, there is no guarantee that the operation has actually succeeded;

the red icon with a white cross is the error sign: it means that the task execution has failed.

### Clear Log action

The **Clear Log** button should be used to remove all the logged events from the application database. It is located on the **Application Log** view toolbar.

### Full Expand action

The **Full Expand** button from the **Application Log** view toolbar should be used to expand all nodes in the table of logged events.

### Full Collapse action

The **Full Collapse** button from the **Application Log** view toolbar should be used to collapse all nodes in the table of logged events.

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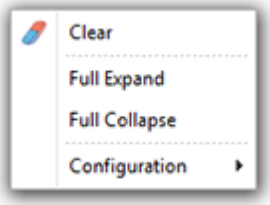
The options of clearing the application log, expanding nodes in the tree of logged events and collapsing them are also available from the pop-up menu of the Application Log tree. Pic 1




**Pic 2. The Application Log tree pop-up menu**

The Application Log displays both events that take place in Remote Shutdown client and sever applications. To switch between the client and sever logs you can use the combo on the toolbar of the **Application Log** view.

Analyzing the **Application Log** can help you a lot in your everyday work with Remote Shutdown, because this log contains all the information on the executed tasks and provides you with troubleshooting recommendations in case any problems are detected.

The layout of the **Application Log** view, including the visible columns, the column widths, the sorting settings, the text wrapping and the details pane visibility is saved between the application runs.

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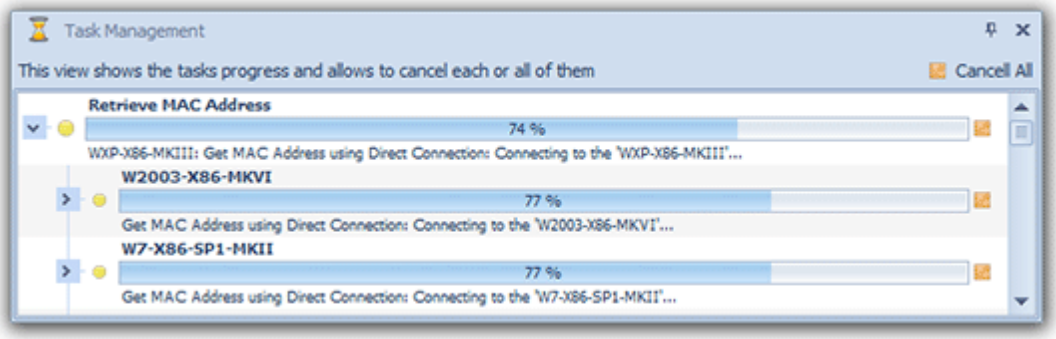
# Chapter 15: Task Management

The **Task Management** view Pic 1 shows the detailed progress of each operation being performed at the moment and allows canceling a particular operation or all running operations. By default, it is located at the bottom of the Remote Shutdown main window.


Task Management
This view shows the tasks progress and allows to cancel each or all of them
Cancell All
Retrieve MAC Address
74 %
WXP-X86-MKIII: Get MAC Address using Direct Connection: Connecting to the 'WXP-X86-MKIII'...
W2003-X86-MKVI
77 %
Get MAC Address using Direct Connection: Connecting to the 'W2003-X86-MKVI'...
W7-X86-SP1-MKII
77 %
Get MAC Address using Direct Connection: Connecting to the 'W7-X86-SP1-MKII'...

**Pic 1. The Task Management view**

Progress information for every operation is shown in the pane with the progress bar, the operation information text and the **Cancel** button. The **Cancel** button is used to cancel individual running operations, whereas if the grouping operation is canceled, all the sub-operations are also canceled.

### Cancel All

The **Cancel All** button from the **Task Management** view toolbar can be used to cancel all the operations running in the application.

You can cancel all the running operations by clicking the **Cancel All** button on the toolbar of the **Task Management** view.

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# Chapter 16: Live Update

Remote Shutdown can be easily updated with just a few clicks. The update process is performed via an Internet connection using preconfigured proxy settings.

### Check for Updates

The **Check for Updates** button from the **Update** Ribbon group should be used to check for new versions of Remote Shutdown.

Remote Shutdown can check for updates automatically. You can configure the application behavior regarding the automatic check for updates on the **General Settings** preference page.

To check for updates, click the **Check for Updates** button from the **Application Menu** or from the **Update** group of the **Application** Ribbon page. Remote Shutdown will check if any updates are available and if so, the **Live Update Wizard** Pic 1 will appear on the screen.

Live Update Wizard
Welcome to EMCO Update Wizard
EMCO Remote Shutdown 5.0.1.1143
Product update is available and contains the following changes:
EMCO Remote Shutdown 5.0.2.1443
New Features:
Four different methods for retrieving MAC addresses from remote Machines are in
Ability to decrease load of electricity network by using WOL Power Peak Options.
Introduced Network machines MAC Addresses view.
Improvements:
More detailed information in logging remote operations' results.
A recurrence exception Machine queue is initialized wrong.
Some dialogs are painted wrong when using Office 2010 skins.
Resolved Issues:
Possible errors at the application start up after changing system locale settings.
Cancellation of remote operation might be not logged.
For more details see
http://emcosoftware.com/remote-shutdown
To perform update press 'Next'.
< Back
Next >
Finish
Cancel

**Pic 1. The Live Update Wizard welcome page**

The **Live Update Wizard** will introduce you to the changes made in the newer version and guide you through the whole updating process while showing the detailed download progress. When the download is finished, the application will be restarted to perform the actual update.

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# Chapter 17: Requirements

Please carefully read and follow all requirements, listed here, or you may not be able to successfully use the product. You can contact our support if you experience a problem during the product use.

## System Requirements

Computer running Remote Shutdown must meet the following requirements:

### Minimum Hardware Requirements

- 1 GHz Intel Pentium processor or equivalent
- 512MB of RAM
- 250MB of free disk space

### Recommended Hardware Requirements

- 2 GHz Intel Pentium processor or equivalent
- 1GB of RAM
- 500MB of free disk space

### Supported Platforms

Windows XP, Windows XP x64, Windows 2003, Windows 2003 x64, Windows 2003 R2, Windows 2003 R2 x64, Windows Vista, Windows Vista x64, Windows 2008, Windows 2008 x64, Windows 2008 R2, Windows 7, Windows 7 x64, Windows 8, Windows 8 x64, Windows 2012

### Requirements

- Administrative rights on the local computer
- Enabled NetBIOS over TCP/IP

## Requirements for Remote Computers

Remote computers, accessed by Remote Shutdown must meet following requirements.

- Platform: Windows 2000 (with SP4 or later), Windows XP, Windows XP x64, Windows 2003, Windows 2003 x64, Windows 2003 R2, Windows 2003 R2 x64, Windows Vista, Windows Vista x64, Windows 2008, Windows 2008 x64, Windows 2008 R2, Windows 7, Windows 7 x64, Windows 8, Windows 8 x64, Windows 2012
- An access with a Local or Domail administrator rights
- Enabled NetBIOS over TCP/IP
- An ability to ping the computer within 1500 ms
- Started services: Computer Browser, Remote Registry
- File and Printer sharing enabled
- Enable access to the ADMIN$ share
- TCP ports opened: 135, 139, 445
- UDP ports opened: 137, 138

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# Chapter 18: About EMCO Software

**EMCO Software** is a leading innovator on the remote administration and management solutions market. Headquartered in Reykjavik, Iceland, we are an international company with offices and operations around the globe. Since the company's founding in 2001, we have been dedicated to providing network administrators with feature-rich, easy-to-use and affordable software and improving productivity of IT departments. Focused on the real-world needs of network professionals, our products are simple to try, simple to use, and simple to maintain while providing the power, scalability and flexibility needed by companies and organizations of all sizes.

Our solutions portfolio includes award-winning products targeted at remote network inventory, remote software deployment, remote desktop access and administration, network protection from viruses and malware, network security and health analyzing, remote power management, and remote automation.

## Our Innovations

For a long time, products for remote desktops management, administration and inventorying were positioned on the market as enterprise-level solutions with a prohibitive total cost of ownership. A high price and a significant complexity kept many companies and organizations away from those solutions despite their high demand for tools that can improve productivity of their IT departments. We came onto the market looking to change this situation focusing on real-world needs of network professionals by providing simple but effective products and making them affordable for companies and organizations of all sizes.

Our first releases in 2001 proved that our products - which can be up and running within minutes, with no learning and complex configuration required, to immediately provide remote desktop control over the network - were exactly the solution that network engineers need most. An intuitive interface, valuable highly demanded features and an affordable price were the key factors to our quick market acquiring. After the first big success, our solutions portfolio quickly grew to 35 products that cover various fields of network administration and help automate hundreds of administration tasks. Along with this, there is still a lot of space for improvement, and we plan to further extend our product range to provide best-of-breed solutions.

## EMCO Worldwide

More than 20,000 customers in 85 countries around the world rely on our products every day to take the complex routine out of their network management tasks. Our solutions help them to remotely manage as many as 2,3 million desktops and 103,000 servers and save millions of hours of work and multi-million dollar costs in total every year. Our worldwide customer base includes dozens of Fortune 100 and hundreds of Fortune 500 companies, as well as numerous large and small businesses representing all industries, educational and healthcare organizations, charity and non-profit organizations, and government institutions.

As a global company, we have partners all around the world who contribute to our products development, international sales and technical support. We are proud to cooperate with leading distributors and more than 50 resellers from 20 countries who represent our products on local markets.

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## Company Facts

- Year founded: 2001
- Headquarters: Reykjavik, Iceland
- Status: International corporation
- Expertise: Software network solutions
- Number of products: 35+
- Technology awards: 100+
- Number of customers: 20,000+
- Customers in: 85 countries worldwide
- Fortune 100 customers: 37%
- Fortune 500 customers: 49%
- Operations in: 20 countries worldwide
- Number of sales partners: 50+

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# Chapter 19: Contact Information

We would be glad to help you with any questions and problems you might have. Here you can find all the information you will need to contact us. To get quick answers regarding support issues or any other services, use corresponding contact information.

### Company Requisites

- Name: EMCO ehf.
- Address: 12, Bildshofda St.
- City: Reykjavik
- Country: Iceland
- Postal code: 110
- E-mail: emco@emcosoftware.com
- Site: emcosoftware.com

### Sales Questions

For any pre-sales or sales questions, contact us at sales@emcosoftware.com or call us:

| | |
|---|---|
| +1 646 233-1163 | Business days 9.00-18.00 GMT (8.00-13.00 EST; 8.00-12.00 CST; 8.00-10.00 PDT). |
| +44 20 3287-7651 | Business days 9.00-18.00 GMT.<br>Other hours: please leave your phone number and message - we will recall you within one business day. |

### Technical Support

In case of any problems with our products or any technical question related to our products, please visit our Support area to receive FREE technical support.

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